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THE AMERICAN PSYCHIATRIC ASSOCIATION

1958 Annual Meeting, Civic Auditorium, San Francisco, Calif. • May 12-16, 1958

Clinical excerpts *No.* 2 *of a series*

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Schizophrenic reaction	111	44	40%	41	26
Anxiety reaction	35	26	74%	7	2
Affective disorders	23	17	74%	3	3
Personality disorders	10	1	10%	3	6
Chronic brain syndromes	12	1	8%	8	3
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REFERENCE
Hollister, L. E., Elkins, H., Hiler, E. G. and St. Pierre, R.: Meprobamate in chronic psychiatric patients. Ann. New York Acad. Sc. 67:789 May 9, 1957.

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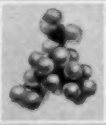

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THE AMERICAN JOURNAL OF PSYCHIATRY

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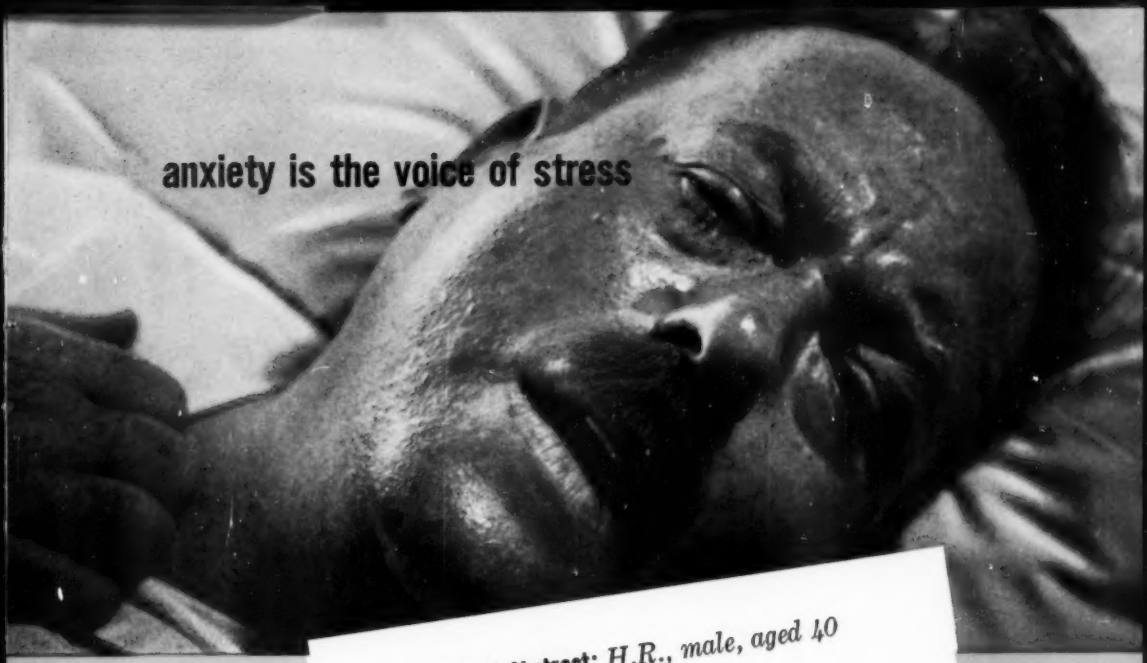

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1. Waldman, S., and Pelner, L.: Am. Pract. & Digest Treat. 8:1075 (July) 1957.

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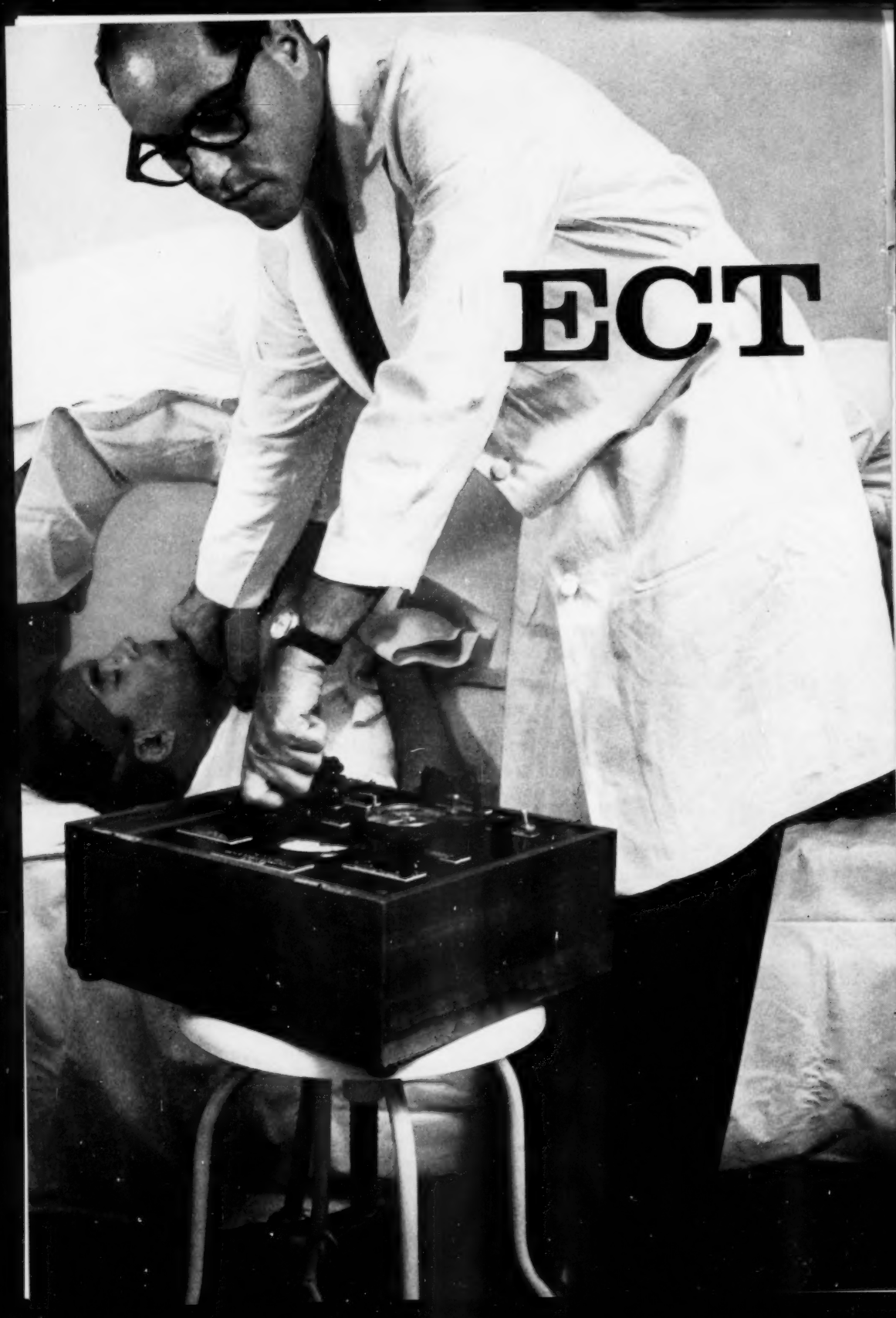
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*Alexander, L.: *Chemotherapy of depression—The use of meprobamate combined with 2-diethylaminoethyl benzilate hydrochloride (benactyzine). J.A.M.A. In press, 1958.*

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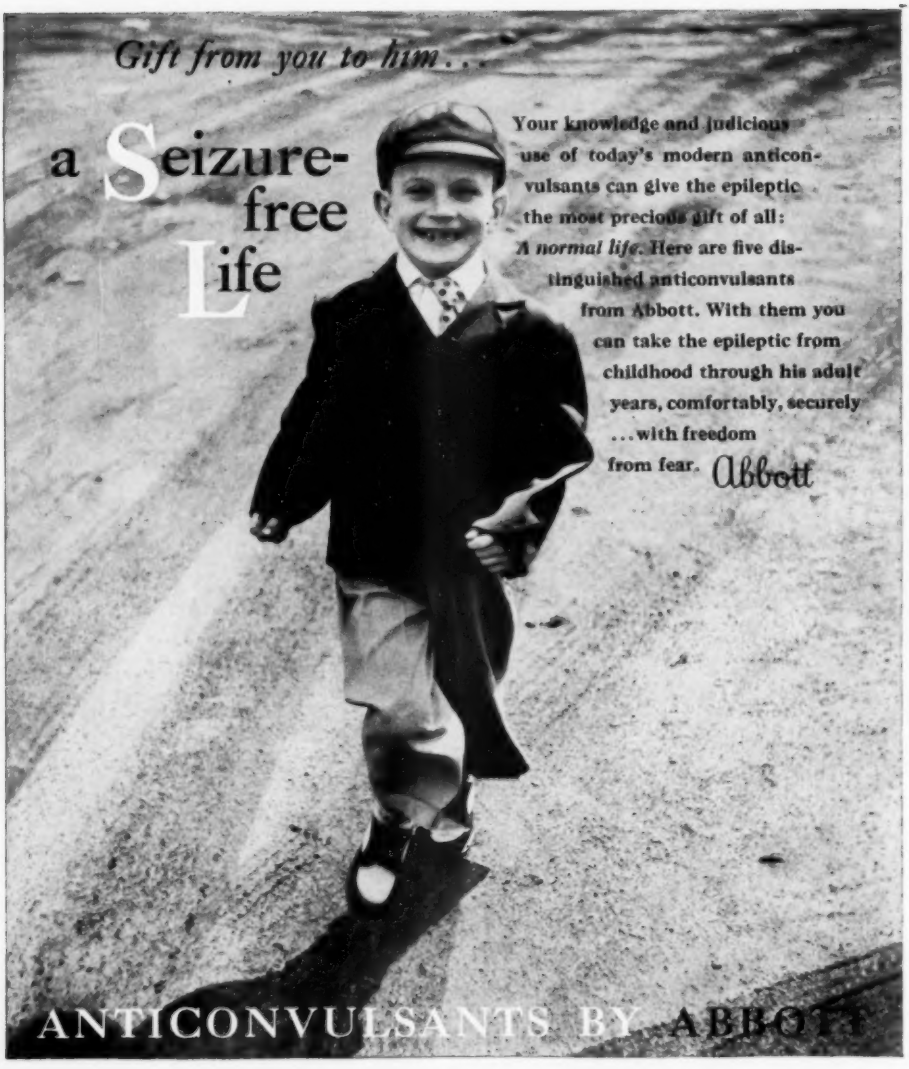

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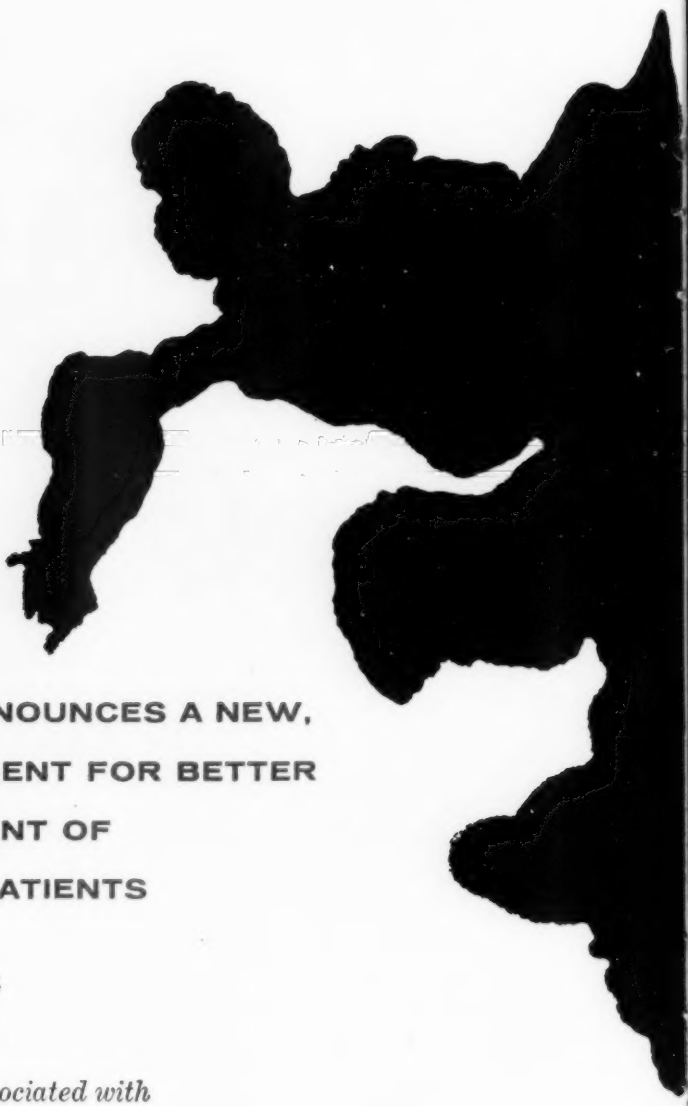

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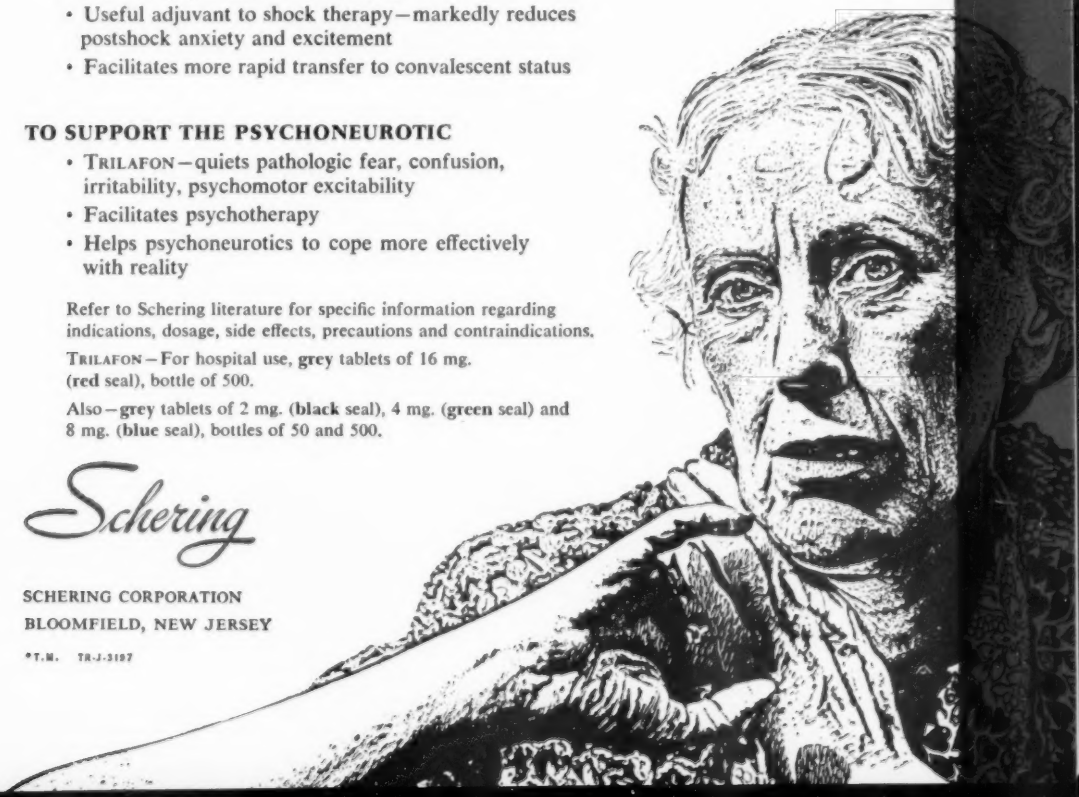

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HOMEOSTASIS DURING PUBERTY[1]

FLANDERS DUNBAR, M.D., PH.D., MED.SC.D.[2]

ORIENTATION

The maintenance of homeostasis, a focal problem in preventive medicine, is particularly difficult during a period of developmental change. Next to infancy, when the maintenance of homeostasis is dependent almost entirely on the mother or the mother substitute, puberty is probably the period of the most rapid psychosomatic change.

During this period the developing child experiences changes in body, changes in status including appearance and clothes, possessions and range of choice, and changes in attitude toward sex and the opposite sex, all of which by necessity involve a changed child-parent relationship and changes in the rules and regulations to which the youngster is subjected.

The affective reaction to change is largely determined by the capacity to communicate. With adolescence comes a marked increase in this capacity together with a strong urge toward self-expression. Communication is a means of coping with anxiety which inevitably accompanies stress. Stress is used in Selye's(16) sense as a non-specific deviation from the normal resting state. It may be caused by function or damage and it stimulates repair. Hence, stress is part of normal living throughout the life span, but because of the nature and magnitude of the changes involved it has a peculiar quality during puberty. If adaptation is adequate, homeostatic equilibrium is maintained albeit on changing levels of function. With failure of what has been called the general adaptation syndrome, unless help is available, illness results. But along with the rapidly occurring changes just listed, there comes a change in the illness syndromes to which the adolescent is susceptible when his capacity for adaptation under stress is overtaxed.

Interestingly enough, the leading causes of death for ages 10 to 20 are the same as those for middle age although in reverse order: accidents, cancer and cardiovascular diseases. Each of these periods of life is a period of rapid change and peculiar stress. The adolescent is concerned with finding himself sexually and vocationally, and by the time he reaches maturity he is likely to have to cope with parents concerned about losing themselves sexually and vocationally.

According to Neavles and Winokur(12) much of the peculiar quality of teenage stress rests "in a deep bisexual cleavage, which accompanies puberty, rife with intense sexual confusion." In cases where emotional rejection has been accompanied by rigid training in early childhood and infancy, it is at this age that the child, if he is capable, revolts, escapes and defies.

This rebellion, realistically successful or not, is marked by moods and rages which come and go with greater and lesser violence, essentially outside the range of conscious control or even awareness. One might expect such changes to favor susceptibility to familiar illness syndromes, but this is rarely the case. Even those adolescents with an earlier propensity for gastro-intestinal disturbances or allergy, now, when homeostasis is disturbed, are propelled into action, as it were projecting stress out to the external world. Although Mirsky and others object (correctly, I believe) to stretching the concept of homeostasis beyond internal measurable bodily processes into the area of behavior, this action springs so directly from disturbances of internal bodily processes, and its discharge serves so immediately to restore physiological equilibrium that the term is used here to emphasize a peculiar quality of action characteristic of the adolescent. He often appears catapulted into accident or delinquency.

His behavior suggests the sudden blackout of the pilot which so often leads to crashes. As Silverman and his associates (17) have pointed out, this phenomenon has its physiological basis in disturbed homeostasis within

[1] Read at the 113th Annual Meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

[2] Address: 1 East 69th St., New York 21, N. Y.

a closed system, adrenalin-noradrenalin imbalance, leading to inadequate pressure in the blood vessels to combat centrifugal force and gravity sufficiently to keep the brain and eyes adequately supplied with oxygen. But this occurs in the anger-in not in anger-out, people, to use Funkenstein's term, when they have been emotionally upset just prior to coming on duty. Hence, we have a disturbed homeostasis in a closed system playing a role in overt behavior.[2]

There is a general impression that the accident-prone and the delinquent have something in common. In the literature on the subject a tendency to impulsive action and difficulty with authority have been indicated as the most outstanding characteristics of the accident-prone(15) as well as of delinquents. Also mentioned are emotional poverty, defective interpersonal relationships and communication, and the "gray mood" which often accompanies the inability to learn that walling off unwanted feelings does not banish them(12).

Both impulsive behavior and difficulty with authority have their roots in early failures in communication. Nevertheless the fact is often overlooked by those who have mentioned changes of habitat and broken homes, that these failures spring not so much from parental rejection as from a feeling or the fact that the parents are out of reach.

Developmentally, the tendency to act out precedes and complements speech. Children who feel hopeless about making themselves understood tend to do something to get attention, smash something or hurt themselves, until, if no one comes to the rescue, they get the habit. Sometimes this habit disappears, but it is likely to revive at puberty and continue throughout teenage and even longer if satisfactory communication has not been established.

Accidents alone account for nearly two-thirds of teenage mortality and an even greater percentage of incapacity. They reach their peak at the age of 21, and the accident rate of 20 to 24, both industrial and non-industrial, is 2½ times higher than at the age of 40 to 44, 4 times higher than at the age of 50 to 54, and 9 times higher than at the age of 60 to 64. Delinquency is similarly prominent and it is estimated that by 1965 one million of the some 25 million children in the United States age 10 to 17 will appear in court for this reason.[4] Even at present, according to Gesell, *et al.*(3) "one million boys and girls under the age of twenty-one will commit 'crimes' serious enough to be picked up by the police."[5] And, of course, for every one who appears in court there are several who escape detection.

[2] Note also Karl Menninger's use of ego as the homeostatic regulator(10).

CASE MATERIAL

While the information just given was being accumulated, a random sample of youngsters was under observation to obtain a more detailed picture of the threats to homeostasis and the adaptation mechanisms called into play during puberty. This paper is devoted to the vicissitudes of a group of 36 "healthy" puberal boys and girls drawn equally from public and private schools who were observed intensively during the age period 10 through 16 or longer. Information was obtained about responses to stress situations at home and at school through interviews and reports, checked by Rorschach and other tests, and then analyzed with a view to its bearing on the tendency to "act out" or become ill. By "act out" in this context is meant to give vivid, graphic expression to a conflict in action rather than to attempt to understand it by means of verbal formulation and discussion. It is not that the youngster is trying to communicate what he means in this graphic action. He is impelled by forces he does not understand to behave in a specific way.

One might take as an indication of essentially normal development the fact that these children all seemed to fit Gesell's pattern of "semirhythmic fluctuations" which mark the

[4] N. Y. Times, May 6, 1957.

[5] The criminal law of the State of New York defines an adult as a person 16 years of age or older—the age group below 16 being called *juvenile delinquents*. The group 16 through 20 is called *youthful offenders*. Recent statistics for New York State show a startling increase of delinquent acts by the younger boys, 16, 17, and 18 years of age. (Boys outnumber girls four to one.)

advancing cycle of emotional growth between the nodal ages of 10 and 16, in which

'Ten' is casual and easy-going. Eleven is sensitive and self-assertive. Twelve is outgoing and balanced. Thirteen is withdrawn and inwardized. Fourteen, expansive and exuberant. Fifteen, restless and apathetic. Sixteen, friendly and well-adjusted(3).

As one came to know them better, however, turmoil around the age of 12 became obvious, along with a sense of loneliness resulting from a feeling that this turmoil had to be concealed, and often a secret dread of becoming teenage. Gesell's(3) statement was shown to these children toward the end of the six-year period of study, and most of them called attention spontaneously to this discrepancy. It was usually during this year that, in the more disturbed, the first marked acting out occurred.

When the material derived from this study was reviewed, it appeared that these children fell naturally into 3 nearly equal groups with no significant preponderance of boys or girls in any one group: 1. Those in whom homeostasis was maintained, shifting more or less smoothly from one organizational level to the next. 2. Those with some difficulties as indicated by at least one major accident and, perhaps, somewhat pronounced lying and stealing. 3. Those with a variable accident history combined with marked delinquent tendencies.

GROUP I

In the first group there was no important history of delinquency, illness or aberration in sexual development. Social relationships and capacity for communication were good. School adjustment was easy and flexible in some level of the upper half of the class. All these children had well-focused interests outside of school to which they devoted considerable time. All played a dynamic role in group thinking whether in the forefront or backstage. They had good contact with their fathers and mothers. Their parents had good contact with each other and were essentially well adjusted in the community. If schools had been changed, it was because the family had moved, not because the child had difficulty in school.

In view of the prevalence of accidents during this age period, it is not surprising that many children in this group reported one accident of sufficient severity to be remembered. In each instance, this accident occurred when *the relationship with a parent had been threatened.* Robbie, at age 12, fell off his bicycle and broke a wrist on his way to visit his mother who had been sent to the hospital for a major operation. Mary, at the age of 13, broke a small bone in her foot playing soccer just after her mother had had a major accident. In talking about it, she said she had been thinking of what it must be like for mother not to be able to run around because of her broken leg. This observation is included for its possible bearing on the picture presented by the next group.

In Group I, when first observed, there was no history of broken homes, but two breaks occurred during the period of study. The father of Jane, the youngest and the only girl among 9 children, died when she was 14. The home of Albert, an only child, was disrupted through divorce, but this happened only after he had gone away to school at the age of 14. The relationship to the father had been and remained outstandingly good.

The projective and other tests for this group showed a usual adolescent picture with some unwillingness to leave the fantasy world of childhood and confusion about changing bodies and the changing world. This struggle was most marked in Jane and Albert who had to cope at this time with the somewhat traumatic loss of a parent. Excerpts from their tests are included to establish a vantage point from which to view the other groups.

The report of Jane's tests taken shortly after her father's death reads as follows:

Jane wanted to be cooperative, yet she had some trouble in deciding on the relationship between the characters in the T.A.T. pictures. In contrast, however, in structured situations, she was very well able to meet the existing standards. She did less well when independent judgment and thinking problems through and arriving at conclusions unaided were demanded.

Her fantasies are benign and happy, yet their destructive effect lies in the fact that these have for her *more reality value* than her surroundings.

The motivating force in her life appears to be a wish to re-establish a father-little-girl relationship. The desire for paternal love and protection is expressed on different levels and in different forms.

At the same time, she is angry at the father and wants to hurt him.

The projective material leads to a suggestion that this girl was severely traumatized and that her withdrawal into fantasy is in part a reaction to her trauma.

Albert's tests taken during the period of separation between father and mother which preceded their divorce contains the following:

This boy made the impression of a well poised youngster. He derives pleasure from displaying his knowledge, his span of attention and concentration is superior, and the level of his performance is evenly efficient.

This youngster is an excellent thinker. He is creative and productive, and is capable of independent judgment and superior problem solving performance. His store of information is large, his memory for immediate material, excellent. His imagination is rich. His interests are many and varied.

He tries to understand himself and the world around him, which he perceives as very confusing. Nevertheless, he does not give up or withdraw from the puzzling situations, but tries to solve them to the best of his abilities.

Desiring his mother is associated for him with 1. being rejected, and 2. being completely subjugated and controlled by her as symbolized on the Rorschach by "an electronic eye which controls"—a fate which he wants to avoid.

On the unconscious level he desires to identify with his mother and to have her there. Nevertheless, for the sake of security he makes almost conscious efforts to identify with male figures holding power and positions of importance in this world.

In conclusion, the overall picture is that of a boy whose personality is developing in line with expectancy for his chronological age, with the emotional development lagging behind somewhat.

When he was tested again 3 years later, the report read as follows:

On the structured psychometric test Albert worked very efficiently and showed very superior intellectual capacities.

When necessity arises, Albert is able to deal with environmental problems. He shows a good grasp of environmental demands (6 popular responses in his Rorschach record), and he shows an ability to respect cause and logic and to use his cognitive faculties for checking purposes.

At present Albert's ability to function in the intellectual area has improved, he shows more capacity for self-discipline and for working consistently, even on those tasks which he does not like.

The tests for both boy and girl give considerable detail about the nature and intensity of their reaction to the threat to security precipitated by the parental loss. Both made use of fantasy and showed an intensification of confusion about sex and identity but both maintained good achievement records inside and outside of school. The boy organized a club and ran the school paper. The girl became proficient in ballet and developed her scientific knowledge and laboratory skills sufficiently to qualify as a laboratory research assistant during the summers following her junior and senior years in high school. Neither showed delinquent behavior and neither suffered from an accident or illness. Both became excellent drivers and passed their driving tests as soon as the law permitted.

GROUP 2

In Group 2 there was a history of many minor and at least one major accident. In nearly all the boys and half the girls, this was combined with sexual precocity and somewhat pronounced lying and stealing. Two-thirds came from broken homes; the others from homes rife with tension and conflict.

The boys were nearly all first children and the girls, first daughters or first children. Sibling rivalry was marked. They showed little interest in intellectual values and verbalization. Actions were geared to immediate stimuli rather than long range goals. Their school performance was erratic. There was much skill but little common sense. For example, the examiner for driver's licenses said of one of them that his conscience bothered him in letting her pass, because her excellent ability to manage the car was in striking contrast with her erratic judgment.

These children were interested in the spot light rather than in power, but were frequently bored and had no consistent hobbies. They had few friends and changed the few frequently. They tended to follow leaders by fits and starts and were poor in sports requiring teamwork. They feared illness but made light of minor injuries, physical or emotional, unless it suited their purposes to exploit them. Their accidents occurred when they felt lonely, angry or frustrated. As one of them put it, "with all roads blocked and all doors locked."

When Perry was 10 years old, his mother obtained a divorce from his father whom he greatly admired. The following is an excerpt from projective tests taken shortly after his mother's remarriage 6 months later:

This boy seems to be in a reactive depression. He has high average to superior intelligence, but is very restricted and depressed. There is a compulsive generalizing tendency which is related both to his ambitious standards and his underlying confusion. He feels that he is weak and feminine but has a strong ambition to become a conventionally achieving man.

Larry's Rorschach was also taken shortly after his mother's divorce. It showed:

Superior intellectual capacity, repressed hostility and difficulty with authority, unconscious dislike of women, good superficial relationships, but with a shrinking from emotional contact. At heart he remains a typical boy, so disturbed by his easily aroused anger that he is unable to disentangle it from the healthy need to express himself.

Nancy was not much more than 4 years old when her mother divorced her father in order to marry another man. About a year later her father was killed in an accident. The following is an excerpt from a Rorschach taken when she was 6½:

This child certainly has superior intellectual ability. She has an analytical acumen which is unusual at her age. Her restricted productivity and periodic lapses in accuracy of perception are attributable to neurotic blocking and obsessive fears.

Her active inner life is dominated by instinctive impulses, which is usual in a child; but she also has an exceptional maturity of understanding and creative reflection. Toward the outer world she is cold and unresponsive, denying all expression to her feelings and trying to withdraw from any affective contact with others. She does not love or trust any one; and she seems to be afraid to respond or express herself partly for fear of punishment, for the hostile impulses which she feels. She is not a passive, timid child basically, but rather active and stubbornly independent.

Nancy lived with her mother and alcoholic step-father until the age of 10, when her sister was born and she was sent away to school, where she had many accidents mostly in connection with athletics. The following are excerpts from tests taken when she was 14 and her mother was dying of cancer:

The projective material reveals superior intellectual potential which is not effectively utilized. On the Bellevue-Wechsler she received an I.Q. of 116, placing her in the bright normal category. There is marked fear of direct action. She is aware of the fact that her judgment and appraisals of situations are not appropriate. She knows that she acts in accordance with impulse and distorted perception, but her ego structure is too weak to enable her to counteract this. Her main concern is to avoid unbearable tension and anxiety. To this end she uses denial and repression, but under pressure she regresses.

There is a driven, desperate quality in her personality. Her feelings of inadequacy and compensatory grandiosity are marked. She feels unhappy and lonely, as she expresses it, "thoroughly lonely, no one I can really call. . . ." Feelings of internal emptiness lead her to assume different roles, always play acting without too much emotional investment.

In the projective tests for this group, the following points are prominent: 1. Compulsion with indications of hysteria. 2. Weakness with doubts about becoming real men and women. 3. Loneliness with shrinking from emotional contact. 4. Tendency to play act. It may be noted that children whose families are undemonstrative often become exhibitionistic.

GROUP 3

Children in Group 3, like those in Group 2, had a high record for accidents, but few major accidents. The delinquent tendency was marked in half of them and there were several arrests although only one was "locked up." In the other cases, usually a relative succeeded in obtaining a release. In the remaining half there was frequent truancy from school, and, in a few, absence "because of sickness" or disturbances so great that psychiatric help was required.

The majority of those with high accident and delinquent records came from broken homes or from homes in which one parent was trying to "stick it out" with a spouse who was incapable of playing the role of parent because of illness, absence or severe mental illness. All had a feeling their parents were out of reach. Their outside interests were scattered and unfocused. All had difficulty with verbal communication and in establishing friendships, with, at times, a tendency to withdraw into apathy. Over half had poor grades despite good intelligence ratings, often because of markedly defective reading, writing, or spelling.

Although the children in Group 2 were

still able to enjoy sports, particularly where teamwork is not required, those in Group 3 felt such activity to be another threat. Pain was associated with interpersonal relationships and gradually nobody could be trusted. As one of this group put it, "The reason I see less and less of the gang is because Jimmy was not safe to steal with."

When Sam's father married, he moved into the home of his bride to share her life of subservience to her father and mother and their cultural standards which differed markedly from his own. Sam was born into an atmosphere of turmoil, in which no one seemed to approve of any one else or to develop sufficient tolerance to be able to express affection. When he was 7, a sister was born and the family moved into a home of their own, but the conflict continued, and Sam developed a hatred for the girl who stole from him the very meager affection and attention that he had had before. He became boastful, exhibitionistic, and reverted to bed wetting. At 10 he was well launched in a career of lying, stealing and cheating, for it was his only way of getting the things he felt it was his right to have. If his father punished him by giving him only enough money to buy a glass of milk for lunch, the boy saw to it that he had a hamburger like the others. Gradually he became impervious to any type of punishment, but he seemed to be always hurting himself and others, and getting hurt. When he had an accident, it was usually because he got caught in a trap he had set off for some one else. Gradually he withdrew from competitive sports and all association with other boys. But he became proficient in tormenting his sister and her friends and as he grew older such relations as he had with girls followed a pattern of hostile seduction.

The following is an excerpt from his projective tests:

This youngster appears to be at present in a state of acute turmoil. He desperately tries to present himself as an adequate and efficient boy, yet beneath this facade is an infantile, agitated and poorly integrated personality.

In unstructured situations (as exemplified by projective tests) his performance is inferior, he does not integrate his ideation with reality demands, and he allows his ideation to flow unchecked. Thinking disturbance, characterized by flight of ideas, overconcreteness, drawing of unjustified inferences and autistic thinking, is in evidence.

While he is afraid of his impulses overrunning his ego, and feels victimized and helpless in the face of these, there is also a feeling of elation and release of tension connected with the setting of powerful forces into motion.

His concept of people is confused; his world is populated by "killers and traitors, smashed people with blood dripping," and "Boy kills himself after he has lost the stolen money."

This youngster painfully experiences his precarious balance. His self-image is that of "insane killer, devil, angel of death." Oral and anal fixations have been poorly resolved. Sado-masochistic pattern is pronounced.

David's mother, a Catholic, had been forced to give up her religion in order to marry David's Jewish father. Although she maintained appearances and represented herself as Jewish, David insisted that she was living a lie and he could have no respect for her. He was sure his father thought so too, but at the same time blamed his father for requiring this of her. He was sure they hated each other and thought that if they admitted it and got a divorce his own life would be happier. He shared this secret with no one until his school principal tried to find out the reason for his social and academic failures. She then "told on him" to his parents, as she had promised not to do and, from that time forth, he decided that people were all bad and rules were no good and that the only thing that was left was to learn to get what he wanted without getting caught. This he did so successfully that his school record improved considerably, and it was not until he was 16 that he was discovered in a "crime" of sufficient seriousness for him to be expelled from school. In the meantime, he joined his parents in making the life of his only sibling intolerable. Incidentally, the younger brother developed a stubborn case of ulcerative colitis.

In David's projective tests there is the following passage:

The boy tries to impress others by his unusual and deviant reactions. Basically, he feels very inadequate and unable to function in a satisfactory manner. He is not capable of adaptive emotional reactions, and when he attempts these his controls and understanding are not adequate. He fears closeness and associates it with pain and hostility. His environment does not provide him with stability; he sees the crucial people as explosive and hostile—"Fighting, blood running, coming out of their noses. . . ." He is fearful of others—"rabbit running away"—and he is fearful of expressing his

aggressive potential towards people. Thus his relationships with people are few, and these are characterized by a spurious quality. He seems to want to give an abundance of wrong and unnecessary replies. He does not seek communication with others, but he wants their admiration.

There is much unintegrated impulsivity at the core of this personality. When the ego finally relinquishes its controls and is overrun by his impulses, there is a sense of elation and release.

When Caroline was 8 her mother divorced her father who maintained custody of her one sibling, an older brother whom she had always hated. Both children had been exposed from early age to scenes of violence between their parents, but the parents were unaware of this fact because these episodes always took place after the children were in bed. In the eyes of the world they had always kept up appearances, and even their friends were unaware of the domestic discord. Caroline had many minor accidents. These usually occurred after she had made a superhuman effort to keep her temper. These increased in seriousness and frequency as she approached teenage. She did a good deal of lying, stealing and cheating, and frequently got sick when she was in such hot water that she thought it would be risky to go back to school. She had a reading difficulty which served to keep her teachers' interest focused on helping her to keep up with her class, so that much of her aberrant behavior was passed over.

Caroline's mother, however, became sufficiently worried about her reading difficulty to consult a psychiatrist who suggested that the girl might be helped were her mother to have psychiatric treatment. The following excerpt is from Caroline's projective test taken at the psychiatrist's suggestion when she was not quite 10:

This is a well endowed but seriously disturbed child whose defenses are not adequate and who finds it very difficult to achieve any sense of security.

Her motor coordination is not good. There are shifts from superior motor performance to an inferior one, the general level being below that expected for her chronological age and intellectual development. She is unable to develop any sort of stable, integrated self-concept and to establish meaningful emotional and interpersonal relationships. She makes an effort to relate emotionally to the environment, but these attempts have a strained and artificial undertone.

Caroline's attitude in relation to loss of control is ambivalent. It is perceived by her as a welcome relief from tension, but the concomittant guilt and fear of loss of environmental approval lead her to the anticipation of destruction both from without and within should she lose control. The manifested excitement appears to be primarily of a sexual nature. Caroline's pre-occupation with sexual matters and sexual curiosity considerably exceed those expected for her chronological group.

Caroline improved during the next 3 years and recovered from her reading difficulty, but became such a behavior problem that the school refused to re-enroll her unless she had psychotherapy. The girl made many "impulsive" errors but the projective tests taken at this time showed improvement. An excerpt follows:

As the previous Rorschach indicated, this is still an "introversive" child, a youngster who has turned away from the depriving environment to seek satisfaction within herself. Her fantasies are frightening and charged with aggressive feeling, so that one gets the impression of a rather rootless child, without a feeling of belongingness and without a firm anchorage for herself in the environment. Caroline sees the outside world as dangerous. She seems painfully lonely and sometimes she becomes overwhelmed by sadness and emptiness within.

She maintains herself fairly effectively but as the tensions mount and there is an increasing crescendo of excitement, her primitive self image becomes evident. It seems related to the lack of lasting object relationships and her overwhelming sense of loneliness. The child's impulsivity may be one way of downing the inner depression, but she does show an awareness that indiscriminate responsiveness may lead her into difficulties.

The conflicts about voyeuristic and exhibitionistic problems described in the previous report are largely missing from the current findings. This child is still sexually confused and has considerable concern about her identification and yet she seems to have obtained some reassurance in this connection.

It is not surprising that reading and writing disability, which is essentially a symptom of ego disability, is a frequent finding in this group(1). With Caroline there was the specific fact that her hated older brother often read her insulting notes written by their father to their mother which were usually left under the telephone beside her bed.

With Wallace, whose story follows, there was the added fact that his psychotic mother, who exposed him to scenes of violence by physically attacking his father and occasionally injuring him by the things she threw, pretended that she could not read her hus-

band's writing, although she was otherwise able to read. But, of course, this is not the complete picture. In these adolescents, the ego was settling for a lower level of organization and communication, not to get out of danger but to preserve itself from intolerable pressure.

Wallace, who had taken remedial writing for some time, managed to break first the left wrist, then the right wrist, then fingers on one hand, then on the other. In addition, he broke an arm, a leg and his nose. His grades went steadily down and he lost all interest and sense of goal. Excerpts from his projective test taken at the age of 14 read as follows:

The development of this boy has not proceeded harmoniously. While the healthy strivings are strong, and the boy tries to present himself as a very acceptable and conventional person, the underlying structure is poorly organized and infantile. The core of the personality appears to be less healthy than a superficial integration would lead one to believe. This structure was revealed by the discrepancy of this boy's performance on the tests tapping different layers of his personality.

On the drawing test, which tapped the deepest layers, he showed the most pathology, primitivization and poor ability to maintain control. On the Rorschach test there was relatively less pathology and greater efficiency of defenses. On the T.A.T. (preconscious material), he was able to give integrated productions and to present himself as relatively mature and competent.

His ego is unable to deal effectively with the instinctual realm of his personality, and while it is in good contact with external reality, it is estranged from his instinctual drives.

He experiences these instinctual drives as uncontrollable forces working upon him. In particular, the boy is fearful to express his hostile drives. He feels that "if he will get mad he will be beaten up and left in a corner." Yet, he seeks deviant ways of expressing his destructive drives—"contemplating how to bust the violin he hates, and not to get into any trouble; afraid to try it because he knows he will be beaten up, but maybe he can find a sneaky way to do it."

The most pronounced fear is that of violence. The boy frequently mentions violent accidents, raising the possibility that he was severely traumatized, and that the traumas were experienced as unusually painful. At present, he experiences himself as "mangled and busted," inadequate and worthless, and therefore unable to function without support.

For him there is much denial, identification with the aggressor, projection, displacement, expression of affect in somatic forms in his defensive pattern. Potential for sporadic breaks in control is in evidence.

Wallace shifted more and more to lying, stealing and cheating until finally, at the age of 16, he overturned in a stolen car. The girl friend, who was with him, was killed but he escaped uninjured.

It is clear from the projective tests in these adolescents that the ego boundaries were poorly maintained, especially in unstructured situations. All were markedly infantile with a propensity for disorganization, and all reported a feeling of elation after giving in to impulses. To them, as one boy put it, the world seemed populated with "killers and traitors." Outstanding in their reports was association of closeness with pain.

In stress situations which it seems impossible to change and from which there appears to be no escape, a child may resort to fantasy. But young children have a limited fantasy range: 1. They can "kill" mother, father, nurse, but then they would have no dinner, no bed, no love and so this fantasy is rejected for survival rather than for moral reasons. Another way of coping with the situation is to run away; but then where can one get food, shelter or love? 2. They can think, "I'll kill myself and you'll be sorry when I'm dead." But the young child has to be very sick to do more than dramatize this fantasy. 3. As a last resort the young and unhappy child becomes *very sick* without dying—so sick that he gets attention from his parents, his siblings and perhaps the community, trying to make up for the love and attention he has missed.

Adolescents involved in this conflict encounter a new hazard. They can effect what they have fantasied. The idea of "killing" no longer is the childish one of eliminating or erasing for a moment. It is a final thing, too frightening to picture. Killing one's self is no longer a matter of just going quietly to sleep, or disappearing for a moment. Getting very sick is not the most satisfactory way of getting attention.

The first alternatives being truly horrible because they are possible, must be avoided. Being sick only cuts the youngster off in greater loneliness, and frightening helplessness. The ego must bend all effort toward securing guilt-free and anxiety-free release

and gratification, by-pass thought and dupe super-ego. In this way children become unable to feel what they feel, and see what they see, and that is what makes them difficult.

Sometimes children act out their fantasies in physiological or behavioral disorders, but more often they act them out by having accidents in which they actually do kill others or themselves. To return to the statistics cited at the beginning of this section, more teenagers are killed as the result of accidents than by anything else. Accidents kill 4 times as many teenagers as do the next 2 leading causes of mortality put together, and it should be remembered that after them come homicide and suicide. In most cases the accident is the result of the behavior of the teenager himself.

COMMENT

This study material was truly the result of chance. It was not selected at random for a particular purpose. The core was a group of children who attended a nursery school in New York from the ages of 1 to 3 years and then scattered. It was only after they had reached the age of 10 that they, together with those children to whom they had become attached, became the subjects of this study.

At the outset, during the nursery school years, there were no broken homes, but a surprising number of breaks occurred during the subsequent period. This gave a somewhat unique range for the limited number of subjects. During the 6 years of close observation, no more than two children were attending the same school and the educational experience of the group as a whole had covered 120 educational institutions, urban and suburban, in Palm Beach, Chicago, Boston, St. Louis, Philadelphia, Concord, N. H., as well as New York.

In this presentation it may appear that disproportionate space has been given to test material in preference to case history and interview material. The reason for this choice is that when one hears similar statements from one child after another one may wonder whether the interviewer has not simply chosen to hear and set down material that fits a pattern with which he has been impressed. Finding the same repeated emphasis in the reports of projective tests given by different individuals in different towns, connected with different schools, by-passes this possible bias.

Almost two-thirds of the children in Groups 2 and 3 had experienced some kind of family disruption. In a third of the children in these groups, communication with the mother was poor and it was weak with fathers in almost all cases. This would tend to confirm some of the suggestions made by Rubenstein and Levitt(14) about the role of fathers in families. Poor communication was indicated by an ordinary lack of interest on the part of these parents, or, in some cases, just haranguing without attention to the child's response. In Group 3, however, there was considerably more violence in the homes. Physical assaults by these parents on each other and/or the children were frequent.

The position within the family may or may not bear a relationship to the group distribution of the children. Five of the 7 "only children" were in Group 1 while Groups 2 and 3 contained only one "only child" each. The boys and girls in Group 2 were first children or first of their sex. Among the girls in Group 3, 4 had older brothers, but among the boys of this group, no unique family position was discernable.

All of these groups were subject to the pressures common for their age, but in Groups 2 and 3 the impact of the inevitable changes in status, possessions and household and community rules was amplified by actual changes in the family constellation and habitat. Changes in school, whether as a result of a new marriage or of the child's already poor adjustment, served as a further threat to homeostasis on which healthy maturation depends. Unable to compensate, these children tended to lose any sense of identity they may have had and to disintegrate. In spite of their fear of being overwhelmed, they experienced a sensation of elation and relief after they had given in to impulse.

Although insight is difficult of achievement for all who are impelled to act out rather than to remember and work out, it is particularly difficult for the delinquent, who not only finds communication difficult but fears it to the extent of total abhorrence.

Insight means the elimination of the affect barrier which serves as a defense against feeling and seeing. Nevertheless, those of this group who sought help were essentially free from their difficulties by the time they were 16. The symptoms of the others have been aggravated.

Summary

A study has been made of 36 children during the age period 10 to 16. The children fell into 3 groups: 1. those displaying no symptoms of accident proneness or delinquency, 2. those with a major accident history, but displaying only minor tendencies toward delinquency, 3. those with marked delinquent behavior patterns. The family relationships, adjustment to change and frequency of change, school records and material provided by projective tests differed from one group to another. Some of the differences have been noted. It has been shown that:

1. Relief of tension in ill-considered motor activity is a frequent means of restoring physical and emotional equilibrium among puberal boys and girls whose capacity to respond to change has been overtaxed by the addition of complex external changes to the stress that is inevitable during this maturational period.

2. When inner resources and capacity to communicate have been restricted, as indicated in school and social records, projective tests and interviews, many adolescents become accident prone or delinquent. Exposure to overt manifestations of violence in their early relation with adults appears to favor the delinquent pattern.

3. Even when action has been used to block or substitute for memory and insight, psychotherapy may be effective especially if it can be inaugurated early.

4. The establishment of a steady, dynamic relationship with an adult is imperative. For such children to be alone is dangerous.

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PHARMACOLOGICAL AND BIOLOGICAL PSYCHOTHERAPY [1, 2]

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The material we present is concerned with our current efforts to understand the disease, schizophrenia, and to evolve a specific treatment. Since our concept of schizophrenia is not a universally accepted one we shall first briefly outline our ideas on the nature of this disease and then present some findings which have helped us to formulate our particular hypothesis. With this background we then discuss the logic of some therapeutic efforts we have begun in a preliminary way in an attempt to remedy the disorder.

We consider schizophrenia as a genetically determined metabolic disease. We feel that the psychodynamic observations can be understood only if considered within the framework of physiology and chemistry. The clinical picture has been described in this frame of reference by Rado and associates(1) under the heading of schizotypal organization. With this approach, the clinical symptomatology is considered in the context of a basic biological deficiency. Behaviorally, the fundamental manifestation is a lack of pleasure drive or, to quote Rado, "an integrative pleasure deficiency and a proprioceptive diathesis." It is from this fundamental manifestation of the disorder that symptoms of basic schizophrenia, as described by Bleuler(2), and in some instances secondary symptoms of classical textbook schizophrenia, evolve. The clinical picture has been elaborated in considerable detail principally by Rado(1) and Hoch (3) as well as ourselves in other articles (4). As it is our purpose to discuss primarily our biological findings we do not elaborate further on symptomatology. However, it does seem pertinent to emphasize that when one considers behavioral disorders in the light of the concept of a schizotypal organization and adaptation, schizophrenia is an extremely widespread disease. A careful screening for symptoms of this disorder reveals that the overwhelming majority of patients reporting to the psychiatrist for treatment are probably suffering to some degree from this disease. However, as long as clinical evaluation and projective testing are our only means of determining the presence of a schizotypal defect, the collection of accurate statistics will be impossible. The frequency of the disease will not be determined accurately until we understand its specific biological nature so that meaningful measures can be devised. In the Tulane training program, where psychoanalytic training is incorporated with residency training we conduct careful clinical and psychological evaluation of applicants to the outpatient intensive treatment clinic to screen out those with a schizotypal deficiency. We feel that psychoanalytic treatment is contraindicated in schizotypes. Any type of intensive treatment must be considerably modified to take into account the fact that maladaptive behavior is not a result of the same factors as those at play with the true neurotic or normal individual. The behavioral deficiency in schizophrenics is not due primarily to faulty learning and therefore cannot be fundamentally altered by the re-learning process of psychotherapy. It follows then that in schizophrenia any type of psychotherapy, because it cannot remedy the basic defect, is at best palliative. Psychotherapy, which provides a leaning post for the patient, can help him to meet life situations, which he is incapable of doing because of his deficiency. It thereby relieves stress and prevents emergency dyscontrol which the schizophrenic is prone to develop. In our formulation, the basic deficiency is such that emergency behavior results in increased symptom formation; *i.e.*, plays a role similar to dietary indiscretion in the metabolic disease, diabetes. By the same reasoning, intensive therapy or conventional psychoanalytic therapy which might increase

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stress can, and often does, precipitate overt behavioral decompensation. Even with our best screening techniques, many pseudoschizophrenics or patients with mild schizotypal defects are missed. Our clinic population is of a high socio-intellectual level including predominantly students, faculty and professional persons. Yet, a survey of the last 100 patients screened for admission to this special clinic for intensive outpatient psychotherapy reveals that the majority were diagnosed at intake as schizophrenic. This figure increased considerably for this group after a period of trial therapy. Therefore, utilizing our clinical diagnostic criteria, about 75% of the patients in this representative group referred to the clinic as neurotics for intensive therapy are suffering from schizotypal disorder detectable by clinical criteria alone.

From this brief discussion of our clinical concept of schizophrenia it is apparent that with our present operational concept we feel the majority of persons with decompensating behavioral disorders, whether labeled conventionally as psychotic or neurotic (exclusive of those with cellular damage to the brain), are suffering from a common disease process. We extend our concept of schizophrenia to cover this entire group. Our approach to the disease is that it is primarily a metabolic disorder existing to varying degrees from a very minor deficiency in the so-called mild schizotypes up to a marked deficiency in the chronic overt psychotics. Stress, in our present formulation, is a secondary factor contributing to intensification of symptoms. Because of the primary deficiency, there seems to be a faulty breakdown of the hormones associated with the stress reaction. We postulate that the faulty breakdown products alter brain physiology, thereby accounting for the presenting symptoms.

This sketchy theoretical formulation of our current ideas of the nature of the disease process, which emphasizes the biological aspect, is based on data collected from several studies(6, 7, 8, 9, 10), some of which have been previously reported.

PHYSIOLOGICAL STUDIES

As presented in earlier publications(5, 11, 12), we have implanted small electrodes through a large number of subcortical nuclear masses as well as over the cortex of the brain of schizophrenic patients on 51 occasions. Similar procedures have been carried out on 6 nonpsychotic humans. The schizophrenic subjects consistently have shown a spike and slow wave recording abnormality through the septal region, rostral hippocampus and amygdaloid but in no other region from which we have recorded. Nonpsychotics have not had this finding. The data suggest this is a characteristic finding in persons displaying psychotic behavior. This irregularity varies in intensity with the clinical state of the patient, being more marked when the patient is more disorganized. Recording abnormalities from this region are not associated exclusively with schizophrenia. They are present with psychotics when the disordered behavior is brought about by other means as, for example, when psychotic symptoms are induced by administration of psychosomimetic drugs and in conjunction with episodic behavioral disorders of epilepsy. These observations suggest that this altered physiology is related to psychotic behavior. They also suggest that it is not a fundamental disturbance in endogenous schizophrenia but rather a reflection of the intensity of the complications resulting from the basic metabolic disorder. We shall refer to this again after presenting more data which suggest the nature of the complicating factors in the basic metabolic disorder.

We previously reported(5) the results of therapeutic efforts in schizophrenic patients through electrical stimulation of this region. Stimulation to the septal region consistently produced temporary improvement in behavior in our patient group. Many rapidly relapsed; others held their gains for prolonged periods; some have remained in at least a partially remitted state for several years. However, after a follow-up period up to 7 years, we do not feel that the therapeutic gain has been sufficient to make specific subcortical electrical stimulation as a recommended therapeutic procedure. On the other hand, the biochemical changes, as well as the clinical changes, temporarily induced by this procedure have suggested other therapeutic approaches which we have explored and shall report. Stimulation, with temporary clinical improvement, consistently produced altera-

tions in the rate at which patients' serum oxidized adrenaline(6, 7). It also produced changes in steroid metabolism(13, 14). This was the principal finding that prompted us to test the therapeutic effects of the administration of extracts of the septal region of cattle brain in schizophrenic patients.

STUDIES WITH TARAXEIN

During investigation of oxidizing enzymes in serum of schizophrenics and normals(6, 7), suggestive findings were noted which led to the isolation of taraxein. More specifically, it was while isolating the known oxidase, ceruloplasmin, that qualitative differences were noted between activity of normal and schizophrenic serum. Processing methods were then developed for extracting, in purer form, the taraxein fraction. Reports(9, 10) of clinical effects resulting from intravenous administration of this substance have been presented. A report of later studies with this substance will be presented in the JOURNAL (15). Our present operational concept is that taraxein represents a difference or defect in the oxidizing enzyme system. This oxidizing enzyme system, including ceruloplasmin and taraxein, in our studies has acted on epinephrine and related substances. We have looked further for defects in metabolism of these substances.

URINARY EXCRETION OF CATECHOLAMINES

The finding of differences between normal subjects and schizophrenics in excretion of catecholamines and possibly related compounds in the urine lends further support to our hypothesis that the metabolic deficiency in schizophrenia is in the area of amine metabolism. Sulkowitch(16) recently described a new method for determining catecholamines in urine. Later Sulkowitch and Altschule(17) reported the presence of strikingly larger amounts of catecholamines, *i.e.*, epinephrine, norepinephrine and other related substances, in the urines of schizophrenics than in normals. In our studies employing modifications of the method described by Sulkowitch, the findings in general have tended to support his conclusions. We also have found suggestive evidence that after subcutaneous injection of epinephrine, much higher quantities of catecholamines are recoverable in the urine of schizophrenics than in the urine of normals. These findings are preliminary and have been obtained on only a small series of subjects but suggest that amine metabolism is somewhat altered in schizophrenics.

SERUM COPPER AND CERULOPLASMIN LEVELS

In an effort to explore further the relationship of serum oxidizing enzyme systems to catecholamine excretion and the meaning of these findings in relation to schizophrenic behavior, we have conducted two studies. Since 93% to 96% of the copper in serum is in the form of the copper globulin oxidase, ceruloplasmin, the copper levels give a rather true indication of the amount of ceruloplasmin present. One study consisted of determining fluctuations in copper levels with the administration of subcutaneous epinephrine in a series of schizophrenic patients and normal controls. Over a period of time we had noted consistently that chronic schizophrenics develop a strikingly milder response to epinephrine than do normals. They do not develop physiological changes to the same intensity nor are the subjective symptoms as marked. Frequently, in severe schizophrenics there is no detectable response. This suggests that schizophrenics somehow are unable to utilize epinephrine in the same manner as normals. Differences in copper response to the subcutaneous administration of epinephrine, however, were minor and inconsistent between the normal group and schizophrenic patients. Figure 1 demon-

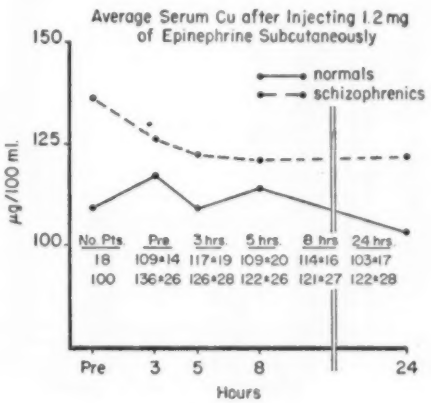

FIG. 1

strates the findings in the group tested. There was no consistency in regard to increase or decrease in copper but average values at 3 and 12 hours were different. The second study was concerned with the correlation between ceruloplasmin levels and the clinical course of schizophrenic patients admitted to our Charity Hospital service. Determinations were made on 34 schizophrenics who were followed for 6 weeks to 4 months. In this small group there appears to be some correlation between higher ceruloplasmin levels and higher remission rate. Those who spontaneously remitted, generally had the highest copper levels (average 238; range 198 to 280) whereas those who failed to respond rapidly to treatment generally had lower copper levels. This suggests that the ceruloplasmin response might be an adaptive mechanism in the disease, schizophrenia—more specifically, that in those patients who are capable of producing increased amounts of the oxidizing enzyme, the prognosis is more favorable. Figure 2 shows our findings

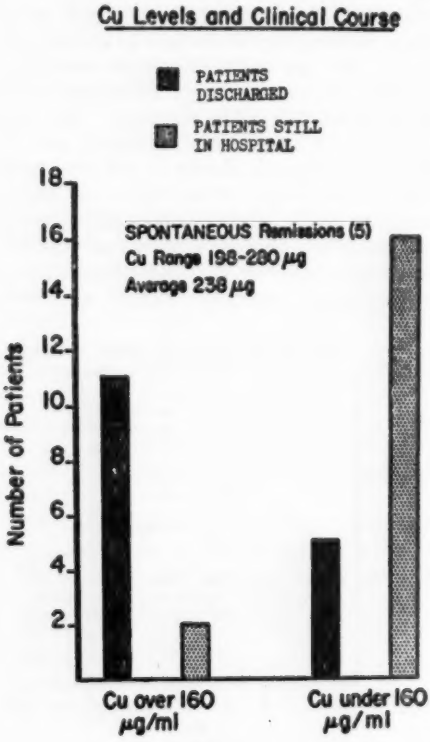

FIG. 2

on this study. We also have found that often as psychotic patients with high ceruloplasmin levels begin to improve clinically, their ceruloplasmin levels drop very rapidly. It thus seems that the ceruloplasmin response might be an important part of the mechanism for counteracting the psychotic process.

We do not think the serum copper studies are by any means definitive. On all the studies, there is considerable overlap between the schizophrenic and normal groups. We feel there are definite indications of a disturbance in the metabolism of catecholamines and this particular enzyme system is involved. However, the metabolism of adrenaline and related catecholamines is not thoroughly understood. They are oxidized by amine oxidase in tissues. Conjugation by the liver is another mechanism and it appears that the metabolism through serum oxidase is also a route of breakdown. We found some suggestive differences in the serum oxidase system. It may be that other routes of metabolism are similarly interfered with in schizophrenia. We do not have this information as yet.

The working hypothesis we have formulated for schizophrenia from these data is as follows. A deficiency exists in the area of amine metabolism. There is apparently a qualitative difference in the serum oxidase which makes for a faulty breakdown of the catecholamines. The degree of impairment of this system varies considerably from patient to patient. When it is more impaired, the prognosis for remission is poorer and the adaptive behavioral patterns more disorganized. We tentatively feel, from our data, that this is an extremely widespread disease and the presence of the phenomenon in a mild degree probably accounts for many or most of the disordered behavioral patterns conventionally diagnosed as neurotic or character disorder. We feel that symptoms of psychotic behavior appear because the products of faulty amine metabolism have a propensity for affecting specific regions of the brain. In our formulation, psychodynamic factors are of secondary importance. Stress is associated with outpouring of catecholamines and thereby can be important in the formation of secondary symptoms. However, because of behavioral patterns evolving as a result of the metabolic deficiency, the genesis of stress is quite otherwise than in

nonpsychotics and cannot be understood by conventional psychodynamic reasoning.

ATTEMPTS AT CORRECTIVE THERAPY

Within this formulation based on our findings, we have attempted to develop a biological therapy for schizophrenia. The procedures are based on our assumption that a deficiency exists specifically in the area of amine metabolism, probably with aromatic amines. One approach has been to administer to schizophrenics the copper oxidase, ceruloplasmin, extracted from serum of nonpsychotic subjects. The second approach consists of administering a specially prepared extract of the septal region of cattle brain.

Our rationale for administering the ceruloplasmin was that if the serum oxidizing enzyme system was defective in the schizophrenic, then replacement with large amounts of the oxidase from normals might correct the faulty process temporarily. Hypothetically then, the amines would be broken down in the proper manner without formation of faulty or toxic by-products. Extracting ceruloplasmin from serum has proved to be a difficult procedure. With the Holmberg and Laurel method(18), we obtained only a 10% to 20% yield. When we employed other methods of processing, the molecule was disturbed so that although there were larger yields of copper, the actual copper globulin yield was smaller. When administering the ceruloplasmin to patients, it was given rapidly intravenously, the copper levels being followed before and at varying periods after. We have found that the levels remain elevated for a fairly prolonged period. The fall off is gradual and the half life of the administered ceruloplasmin is approximately 5 days. We have been able approximately to double the serum ceruloplasmin level in 4 patients. In each instance there was a change in our indicators of adrenaline metabolism both clinically and physiologically. After administration of ceruloplasmin, the patients clinically would respond to the hypodermic administration of epinephrine much more like the normal group. Physiological response, too, was much more dramatic (figure 3).

We have been testing the effects of septal extract for approximately 2 years. Trial with patients was instituted only after exhaustive

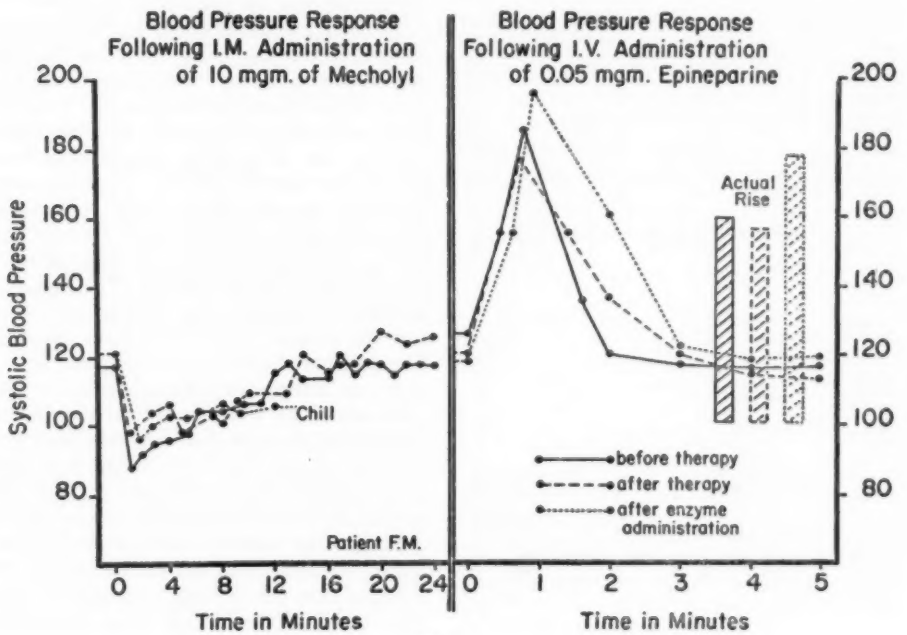

FIG. 3

testing for safety was conducted in animals. The septal tissue is digested to reduce it to a polypeptide. Testing included potentiation of the extracts by the method of Kabat and Wolf(19). Whole brain potentiated in this manner brought down 75% of our monkeys with demyelinating disease whereas there was no apparent antibody reaction with the potentiated extract. Patients receiving the extract for fairly long periods have not developed antibodies to it.

Several findings led us to reason that the septal region of the brain might be releasing a humoral substance. Large lesions that completely destroyed this area in animals affected electrolyte and steroid metabolism. Stimulation resulted in a change in steroid metabolism in the opposite direction(13, 14). Most important in the context of our most recent formulation was that stimulation, while alerting the psychotic patient and often lessening his psychotic symptomatology, resulted in a prompt reduction in the speed with which his serum oxidized adrenaline *in vitro*. We have not obtained this result with stimulation of several other deep regions of the brain. Figures 4 and 5 show changes in copper levels with stimulation of various structures in a series of monkeys and human patients. Adrenaline oxidation is related to copper levels—the speed being greater in direct proportion to the amount of copper present. Our decision to manufacture extracts was based on Altschule's studies(20) with the pineal gland. He reported that the administration of especially prepared extracts lowered the levels of reduced glutathione in psychotic patients. Our method of preparing the extract was modified from Altschule's procedure. Many difficulties have been encountered in preparation of the extract and it has varied considerably in activity.

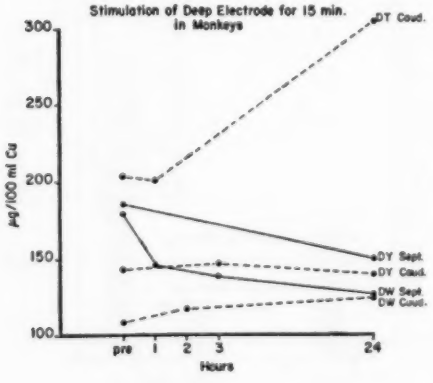

FIG. 4

COPPER LEVELS IN MICROGRAMS
PER 100 MILLILITERS OF SERUM IN PATIENTS
BEFORE AND AFTER SUBCORTICAL STIMULATION

STRUCTURE STIMULATED	PRE	½ HOUR	1 HOURS	2½ HOURS
Septal	133	122	118	96
Septal	177	155	156	155
Septal	168	133	141	167
Septal	157	-	112	118
Rt. Hippocampus	127	167	-	178
Rt. Hippocampus to Rt. Amygdaloid	132	129	143	118
Left Amygdaloid to Left Hippocampus	115	120	128	115

FIG. 5

We have tested the septal extract against taraxein effects in two monkeys. The taraxein was first administered intravenously. When the monkey began to develop clear-cut symptoms resembling those seen in psychotic patients (usually in 3 to 5 minutes), the septal extract was administered intravenously. It promptly counteracted the symptoms in the monkeys causing them to immediately become responsive and alert.

We first administered the septal extract to patients in October, 1955. In all, it has been given to 38 patients. The extract always is given intramuscularly to humans. One patient has received it regularly for 18 months; another, for 8 months; others have been carried for shorter periods. Patients, after receiving the medication, have consistently shown an increase in levels of reduced glutatione much as Altschule reported(20) for his patients receiving pineal. The speed of adrenaline oxidation has slowed somewhat and the serum-copper levels have dropped. The patients showed a good response to hypodermic adrenaline although this test was not done on all subjects beforehand. Urine catecholamine determinations have been carried out on only the two patients who have received the medication longest. In both, the total excretion was as for the normal group although one showed much more marked output following the administration of adrenaline than did normals receiving the same amount of adrenaline. It thus seems that

administration of septal extract intramuscularly tends to alter the metabolism of catecholamines so that the response is closer to that of the nonpsychotic group. The number of studies in the patient group tested is, however, small and this, therefore, must be a preliminary assumption.

A group of 8 schizophrenic patients was treated with extracts similarly prepared from other regions of the cattle brain including caudate, hippocampus, cortex and brain stem. This small group did not respond with changes in the measurements used as did the group of patients receiving the septal extract.

Recently it was reported by Abramson *et al.*(*21, 22*) that extracts of cattle brain had reversed the LSD effects in Siamese fighting fish. They stated that clinical trials with schizophrenics were planned. We know of no reports of brain extracts, as dictinct from pineal gland, being used with schizophrenic patients.

At present, because of many factors including inconsistencies in our preparations as well as the well known difficulty in evaluating any clinical therapy in schizophrenics, we do not feel that we have sufficient data to adequately evaluate the effectiveness of either of these preparations (*i.e.* ceruloplasmin and septal extract) in terms of clinical results. We therefore wish to limit our presentation of therapeutic agents in patient studies to a discussion of the changes in the biological measurements.

Summary

Data we have collected suggesting that schizophrenia is a deficiency disorder in the area of amine metabolism are presented. Investigations are currently under way toward finding substances which might alleviate this deficiency.

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CERTAIN ASPECTS OF SEX PSYCHOPATH LAWS[1]

KARL M. BOWMAN, M.D.[2] AND BERNICE ENGLE[3]

Introduction.—Three years ago we reported on the origins, development and status of the sex psychopath laws then existing in 23 states and the District of Columbia. We reviewed the numbers of persons handled under the laws, the methods of treatment and some opinions of authorities as to the results. We also appended synopses of the main provisions of these laws in the 24 jurisdictions (1, 2).

Brief History.—Sex psychopath laws arose 20 years ago. The commission of a few violent sex crimes, usually involving a child, and the seeming increase of such crimes aroused public opinion. Difficulties in bringing charges and obtaining convictions under statutory law added to public dissatisfaction. Also, the modern idea that sexual psychopathy is related to mental illness led to the demand for medical treatment to rehabilitate sex offenders, and even to prevent sex crimes by screening out potentially dangerous persons.

Michigan's special law, passed in 1937, was declared unconstitutional. The first to stand, the Illinois law of 1938, and Minnesota's 1939 law, validated by the United States Supreme Court in 1940, subsitituted civil for criminal proceedings at an early stage. The next 10 states followed closely this prototype. Many required no charge or crime, for citation to a hearing; definitions of sexual psychopathy were legal rather than medical; and civil liberty was invaded. Earlier one of us (KMB), with Rose, pointed out the medicolegal difficulties in defining the concept of sexual psychopathy (3).

With the enactment of New York's 1950 law, the special laws began to maintain more safeguards to personal liberty. Sexual psychopathy was not defined; criminal proceedings were not interrupted; but complete medical and psychiatric examinations were interposed for all persons convicted of specified sex felonies or certain repetitive misdemeanors. Treatment under an indeterminate commitment as a rule protected the person from further proceedings on the original charge. One or two states legalized the setting up of research into the nature of criminal behavior and methods of therapy.

As we pointed out in the earlier study, much research into the factual foundations of criminal law is necessary before codes and laws can be successfully revised. The revisions must take into account all the pertinent Kinsey data that are gradually being assembled and also the results of such studies as the New York Report that was just issued.

Present Status—New Laws.—In the 4 years since we finished our earlier survey numerous changes have taken place. Three states, Florida, Iowa and West Virginia have passed new laws, making the present total 27 jurisdictions, or 55% of the 48 states and the District of Columbia. In this period, too, about a dozen states enacted changes that vary from making a sex psychopath's escape from a hospital a felony, to passing a whole new law, in Illinois.

Florida's new law, passed in 1955, follows the general mode. It provides a hearing for anyone charged with or convicted of a criminal offense and appearing to be a criminal sexual psychopathic person who is suffering from a mental disorder of at least 4 months' duration, coupled with criminal propensities to the commission of sex offenses.

The Iowa law, also passed in 1955, reverts to the earlier pattern of sex psychopath laws. All persons charged with a public offense who suffer from a mental disorder not a basis for commitment, have criminal propensities toward the commission of sex offenses and who may be considered dangerous to others, are classed as criminal sexual psychopaths. The action to establish criminal sexual psychopathy is tried as a special proceeding, with a jury trial optional. The court may exclude the public from such pro-

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ceedings. The committed person may be discharged at the end of a 3-year probation.

The newest law relating to sex offenders, passed 2 months ago by West Virginia, illustrates many current trends in such legislation. It follows the New Jersey law, but goes it one better with these main features:

1. Commitment required for persons convicted of "Incest and Crimes against Nature," and at court discretion for other convicted sex offenders, presentence medical and social examinations; with 2 purposes: a. protection of public; b. prevention of future offenses.

2. Specialized treatment in suitable cases, under the department of mental health board, with either inpatient or outpatient treatment.

3. Discharge or parole at board judgment as to "reasonable probability" of success, with consent of the committing court in all felony cases, and within the maximum legal term of the offense *unless:*

4. The board deems the person still dangerous to the public and, at least 90 days beforehand, orders his continued treatment and applies for a review, wherein the convict has a full hearing, except for jury trial.

5. The board's order, if confirmed, may continue thereafter indefinitely, except that a new order must be similarly confirmed every 5 years thereafter.

6. The law also provides for voluntary admission and either inpatient or outpatient treatment of anyone who thinks himself liable to commit a dangerous sexual action.

7. The law does not exclude or otherwise interfere with the convict's legal rights of habeas corpus, appeal to a superior court, or other civil rights. It does, however, in what are judged to be suitable cases, substitute treatment and rehabilitation for penal service.

8. No mention of the word sex psychopath, but only of a person's "mental or physical aberrations."

It does discriminate between sex crimes in that it requires presentence examinations in those convicted of incest and crimes against nature, but in other sex offenses leaves the decision to court opinion.

Important changes in the 10 or so states in the past 3 years centered on problems of redefinition, classification, and treatment. California's new maximum security 1,200-bed state hospital, opened late in 1954, receives all observation cases and committed sex offenders, who occupy about two-thirds of its beds. A 1955 amendment provides that a person found to be a sexual psychopath, but not amenable to state hospital treatment, may be recertified for a hearing and be committed to the Department of Mental Hygiene, institutional unit, at a state prison. This change was made to take care of persons convicted of a misdemeanor sex offense whose indeterminate commitment is necessary protection to society, or persons committed as sex psychopaths who are not treatable. Hospitals cannot be turned into maximum security prisons.

An Illinois commission studied special sex offense laws and recommended important changes to the 1953 legislature. Finally, 2 new laws passed in 1955 repealed or amended the old sections and added new ones. The new term defined a sexually dangerous person as one with a mental disorder of at least a year's duration, coupled with criminal propensities to the commission of sex offenses (including acts of sexual assault or of sexual molestation of children). Further amendments are being formulated to clarify the reclassification of persons formerly committed as criminal sexual psychopaths. The present laws are believed to distinguish, better than the old ones, between socially distasteful sexual conduct and socially dangerous sexual offenses.

Three other states also redefined the dangerous sex offender, in the effort to let the term conform with medical diagnosis. The Massachusetts and Nebraska revisions define the defendant's misconduct in sexual matters as showing "a general lack of power to control his sexual impulses," a risk of his injuring the objects of "his uncontrolled or uncontrollable desires," or a pattern of compulsive or violent behavior. The 1955 Wisconsin code provides for the offender whose crime, except for homicide or attempted homicide, "was probably directly motivated by a desire for sexual excitement" in its commission. The law requires a presentence social, physical, and mental examination of persons convicted of rape, related crimes and offenses against children. Psychiatric treatment is mandatory for convicted sex offenders judged able to benefit from it. In regard to these changes, an official comments, "We very much dislike any reference to the term 'sexual psychopath,' which appears nowhere in our statutes or our thinking."

New Hampshire revised a section on transfer of custody of sexual psychopaths. A New Jersey amendment in 1954 added to

its special law the crime of assault with intent to commit the listed offenses; and a 1956 revision brought open-lewdness and indecent exposure under its jurisdiction by excluding them from the requirement of being characterized by violence or age disparity. Persons convicted of these offenses are now subject to treatment. A 1954 amendment, passed over the governor's objections, divided costs of the diagnostic examination between state and county.

Ohio in 1953 revised its entire state code; a minor change in 1955 provides for mentally deficient offenders and psychopathic offenders for whom the ordinary penal sentence "will not afford to the public proper protection against possible future criminal conduct . . ." The act is novel in that it does not single out sex offenses from other dangerous offenses. Oregon also has no sex psychopath law in the usual sense. Its law requires a psychiatric examination and report to the court of persons convicted of certain offenses against children under age 15, which in 1955 was raised to age 16. Rape, incest, sodomy, and inducement to these acts are typical offenses.

The states of Massachusetts, Ohio, Oregon, Wisconsin and Wyoming deserve credit for the way in which they have extended the earlier laws regarding sex offenders to apply to other persons convicted of serious crimes. For example, Massachusetts law 2 years ago repealed its sex psychopath law and authorized treatment facilities for sex offenders in the department of mental health. This program has now been expanded to provide 10 courts with psychiatric clinics and to give psychiatric treatment to all types of offenders recommended by the courts or the department of corrections. Under the new version of Ch. 123 A. sex offenders are handled "in the general and greatly broadened psychiatric services now available to the Department of Corrections and the courts."

A few states, for example California, Maryland, and now West Virginia, provide for the voluntary commitment of persons afraid of getting into trouble as sex offenders. Unfortunately these provisions are little used.

Several states have concentrated on legislation against those who sexually molest children. Wyoming added to its special law a Child Protection Act that contains a stiff provision relating to molestation of children. Mississippi considered a bill severely increasing the statutory penalty for molesting children. North Carolina in 1955 passed a law relating to the taking of immoral, improper or indecent liberties with children below age 16. An Oklahoma official deplored the fact that the state's present penalty, set under a 1945 statute, of a 1-to-5-year term is "not a particularly effective solution" to the problem of several serious sex crimes committed against children in the past few years.

Amendments are pending in 7 states. The Indiana bill concerns procedures; it requires the examinee, under penalty of contempt of court, to answer all questions asked by the psychiatrist, whose written report is open to the accused and his counsel, but is not competent evidence in any but the current inquiry into psychopathy. In Nebraska a bill provides that parents or guardians may not be excluded from the hearing into sexual psychopathy "except when necessary to maintain order in the courtroom."

Of 4 bills pending, a Michigan one would require all persons convicted of any one of 6 sex offenses "to register with the Commissioner of State Police," who is authorized to enforce the act. A Pennsylvania bill concerns mandatory reviews and discharges of committed persons. Minnesota has appointed a legislative interim committee to study proposed changes.

Decisions.—Numerous decisions have been rendered on appeals from the special laws. In general they uphold the legality of the present laws.

Two recent opinions in the District of Columbia held that the proceedings to determine sexual psychopathy are civil in nature; that they do not delay the defendant's trial since he is being confined because of sexual psychopathy; that his current status may be tested at any time by habeas corpus proceedings; and that because the intent of the act is remedial treatment, confinement must be in a place for the mentally ill who are not insane. New Jersey opinion, however, variously defines treatment. A person's transfer from mental institution to prison

is still not a sentence, "but merely changes locale of confinement and supervising agency in stages of treatment."

New Hampshire and New Jersey opinions also held that the proceedings, civil in nature, offend no provision of criminal due process. The commitment is an institutional confinement, not a sentence or penalty. A New Hampshire opinion held that information given medical examiners by the defendant "was not compulsory use of self-incriminating evidence contrary to the Constitution." Nor does the provision of no right to trial by jury render the act unconstitutional.

The rights of released persons may be sharply restricted; according to a New Jersey decision, the probation can be revoked and the person recommitted if he fails to comply with conditions such as the order to undergo psychiatric treatment. A Pennsylvania decision affirmed a court order whereby a defendant, sentenced first for indecent assault to 23 months in jail, was later found to be a sexual psychopath, and committed for an indeterminate period of one day to life. A Michigan opinion held that the petition must clearly set forth the facts tending to show sexual psychopathy. And a Minnesota decision allowed the time served at a state hospital to be "deducted in computing the length" of the prisoner's subsequent term.

Treatment Facilities and Results of Therapy.—The 1200-bed Atascadero State Hospital, opened in 1954, handles all California observation and commitment cases of sex psychopaths, who occupy about two-thirds of the beds. All patients are men. Prior to the opening of this new maximum security hospital, sex offenders were divided geographically between 2 state hospitals, Metropolitan and Mendocino.

Drs. Lieberman and Siegel(6) at last year's meeting reported on treatment in Mendocino State Hospital during the final 2 years before Atascadero was opened.

Dr. Rood's report(8) of Atascadero shows some 700 sexual psychopaths in residence at any period; these are chosen as suitable for group and individual psychotherapy. Currently about a third of all persons under observation are found not to be sexual psychopaths. Drs. Rapaport and Lieberman also describe the new program(7).

A follow up study of releases from Atascadero for 13 months ending with December 1956 shows the following summaries: of 782 patients discharged, 681 were released to their homes, most of them on probation, and about 100 were returned to prison or jail; of 704 released persons, 52 (7.%) are known recidivists and 46 (6.5%), recidivists in other than sexual offenses. The records of 415 discharges, followed for at least 6 months, showed gainful employment, and good to fair adjustment in more than 90% of cases. The most crucial period for the patient was the first 5 months, in which half the recidivists were rearrested. The results so far are felt to show the effectiveness of this medical-legal approach to men whose serious personality maladjustment resulted in socially unacceptable sexual behavior. The entire follow-up study is planned to cover a 5-year period.

Besides California, 2 other states have special treatment institutions. The District of Columbia has a ward in St. Elizabeths where complete inpatient treatment is given. No recent report of results of therapy has been made. The other state is Maryland, which in January 1955 opened the Patuxent Institution. This institution diagnoses and evaluates individuals for the courts, to assist the court disposition of offenders. Committed offenders are returned to the institution for a completely indeterminate sentence. The 89 persons so far committed receive milieu therapy—participating in occupational and educational therapy, counsel meetings, classical group therapy—and tranquilizing drugs. The institution cares for both sexual psychopaths and offenders with sociopathic personalities who are not psychotic.

New York has psychiatric service at all its correctional institutions, which at present are served by 24 psychiatrists, many part-time, and 16 clinical psychologists. State officials feel a special obligation toward the 160 sex offenders committed on a day-to-life term, most of whom are confined in 2 prisons, where 3 psychiatrists collaborate with the prison personnel to maintain diagnostic and treatment service. Treatment methods include individual and group psychotherapy, special drug therapy, convulsive

shock therapy and combinations of these. Although admitting the difficulties in effecting permanent character changes, officials report "success in many cases. Whether this is going to be of lasting benefit has not as yet been proved, but certainly the efforts have been extremely worthwhile."

"Final Report," issued early in 1957, covers New York's research study and treatment under direction of Dr. Bernard Glueck(5), of persons convicted of sex crimes for a 3-year period, 1952-55. It contains much valuable information on the methods of the study, problems of treatment and the nature of the findings.

In Massachusetts the sex psychopath law was repealed in 1955 and in its stead an act passed authorizing treatment facilities for sex offenders in the divisions of mental hospitals. In fact, sex offenders are now handled as only one part of the general and greatly broadened psychiatric services available to the department of correction and the courts. Separate statistics are not kept, so that, except individually, those now under treatment in the hospital because of sex offenses cannot be separated from those treated because of other crimes. Similarly, Ohio, Wisconsin, and Wyoming laws do not distinguish sexual from other serious crimes as causes for treatment. These states thus go farther than Maryland law in extending diagnostic studies and treatment to various classes of offenders.

Wisconsin has positions for 8 staff members, three of them psychiatrists, and also uses the state's outpatient psychiatric facilities. Of 115 persons discharged so far, 6 later committed sex offenses in the state. A 400-bed psychiatrically oriented institution will be included in the 1960-61 budget requests.

Some states describe their treatment program as somewhat spotty; *e.g.,* Colorado has given no individual psychotherapy, but has continued at least one section of group psychotherapy. Some patients have participated actively in the hospital milieu therapies. One patient and his wife strongly demanded castration, which was done; more than a year later the patient had had no trouble.

In administering its new law, Illinois classifies sexually dangerous persons into 5 categories, 1 of which is the treatable group. Treatment is carried on in the psychiatric division of the prisons and includes medical, surgical, counseling, educational, vocational and social therapies, and emphasizes corrective training and rehabilitation.

Minnesota's 1953 revised law is closely patterned after the Wisconsin law, except that it has no mandatory provisions. Of 50 persons examined under the law, none has been recommended for treatment or custody as a sexually deviated person. This may be explained by the fact that no funds were appropriated for additional clinical personnel, and that the present limited force of examiners do not believe that sex offenders can profit from psychiatric treatment.

Missouri since 1949 has committed to state hospitals 50 patients, of whom 15 were legally discharged, 2 escaped and 33 are still in residence. Treatment methods were not described.

New Jersey's diagnostic center sends its committed sex offenders to 4 state hospitals, where they are given mental hospital care; the basic treatment is group psychotherapy, with special treatment as available in the individual case. Some persons the center puts on probation, sometimes with outpatient psychiatric treatment.

New Hampshire and Vermont described no special methods of treatment.

Treatment results are on the whole reported as being fairly satisfactory. In California the average length of hospitalization for sex psychopaths is given as 18 to 20 months, if offenders with good prognosis can participate in an intensive treatment program for a year. Physicians on these services emphasize the value of recertification, whereby the offender unable to benefit from treatment can be returned to prison. Offenders are usually discharged on the basis of favorable response to treatment and as being no longer a menace to society.

On the other hand, some prisoners committed in 1950-51 in New York are still in confinement. So far we have not gathered statistics as to present maximum lengths of confinement for the various sex offenses.

Recidivism.—Our available figures show that about 7% of discharged sex offenders handled under the sex psychopath laws are returned after treatment to prison or hospi-

STATISTICAL TABLE
SEX PSYCHOPATH STATES

	Law Enforcement period	Total commitment	Total observation	Now in residence	Releases discharges	Probation or parole	Readmission
Alabama	4	4 (1 a readmission)	—	—	—	—	1
California	17	2315	2861	558+ (98 obs)	?	—	—
Colorado	3	(Incomplete)	—	—	16 on parole	3 AWOL	2
D. C.	8	38 86	—	30 (2 AWOL)	56	—	5
Florida	1	—	—	—	—	—	—
Illinois	17 (CSP) 1 (SDP)	94 (79-1956)	?	203	43	—	—
Indiana	7	169	—	—	—	—	—
Iowa	1	—	—	—	—	—	—
Kansas	3	—	—	—	—	—	—
Maryland	4	89	—	—	?	—	—
Massachusetts	8	—	—	—	—	—	—
Michigan	2 19	706	—	329 (8 AWOL)	130	204 (35 died)	—
Minnesota	14	—	50	—	—	—	—
Missouri	3 8	50	(5 in 1956)	33 (2 AWOL)	15	—	—
Nebraska	7	—	—	—	—	—	—
New Hampshire	7	—	—	—	—	—	20
New Jersey	1	500	2400	190	234	240 OPD	—
New York	7 7	196	—	160	36	—	—
Ohio	—	—	—	—	—	—	—
Oregon	2 2	5 (Committed as psych. 55)	112	—	—	—	—
Pennsylvania	5	69	139 (3f)	— (9 incorr. 23 in Bur. Corr. Corr referred 13 in Men. Hosp.)		7	—
Vermont	13	—	—	—	—	—	—
Virginia	6	43 in 56, only 11 diagn. as personal disord. c. sex deviat.	—	6 5	—	—	—
Washington	9 fig. for last 3 years	46	151	50 commtd. 22 observ.	—	—	—
Wisconsin	6 years since 1951 repeal	310	818	—	115	62 OPD req. 33 par. ext.	6
Wyoming	—	0	?	—	—	—	—
W. Virginia	—	—	—	—	—	—	—
Total		4431					

tal. This is regarded as an excellent record.

Comparisons, however, are hard to make. It is known both from the Kinsey studies and from other reports that the prevalence of sex crimes cannot be accurately estimated. As noted previously, perhaps not more than 20% of such offenses as rape and child molestation are reported to police. The differing legal definitions of sex offenses, the various degrees of severity and the procedures of indictment and trial further lessen the accuracy of national statistics on sex crimes.

Available statistics indicate a low rate of recidivism in sex offenders, as compared with other types of offenders. The New York research project, however, showed a prior high rate of recidivism in the sex offenders included in its survey. The 7% of offenders who repeat sex offenses may therefore be a good record. The fact that some 30% of discharged mental patients are rehospitalized, compared to only 7% of sex offenders treated under the special laws, points to some success in therapy.

Criticisms by state officials.—So far, our material shows few adverse criticisms. A psychiatrist in the treatment ward at St. Elizabeths considers the main weakness in the District of Columbia sex psychopath law its lack of provision for the disposition of nontreatable patients. In Pennsylvania staff members in both the mental health and corrections departments feel that the old Greenstein act contains all the essential features of the Sex Offenders Act except for directions as to consistent follow up of paroles. They would therefore repeal the Sex Offenders Act. They also readily admit the state's lack of personnel for an adequate job of treatment of these offenders.

Trends.—Our survey of the sex psychopath laws and their administration in the 27 jurisdictions shows several current trends. In general, the states with these laws are accepting more responsibility for treatment of offenders committed on indeterminate sentence. Authorities have also accepted the fact that although treatment units may function under certain circumstances in prisons fairly well, hospitals cannot be turned into maximum security prisons. Some compromise must be made.

Administrators of correctional and treatment centers have also made more effort to select nonpsychotic offenders judged to have a good prognosis and to give them fairly regular, comprehensive treatment.

With the rise of more and better treatment facilities has gone the trend against singling out the sexual psychopath, and some states decry any use of the term. Sex offenders are seen as one group of criminals, all of whom need the best available methods of treatment, correction and rehabilitation. In fact, about a half dozen states no longer distinguish sex offenders as a group from other groups of criminals. This is a psychiatric advance, when not just sex offenders, but all important criminals are given at least a psychiatric examination.

There is also the trend to differentiate minor and nuisance offenses from major sex crimes. Many laws separate crimes of violence and serious personal damage, whether physical or psychologic, from offenses that are distasteful to the public mores. They still retain the right of treatment for certain offenders who violate the law.

The psychiatric evaluation of sex offenders and psychiatric therapy are steps in one direction. The older concept of penology emphasized due process of law and protection of the defendant's civil rights before conviction and a sentence related to the seriousness of the crime committed. The newer concept deals with the criminal's personality rather than with the actual crime committed. On the basis of medical, psychiatric and psychologic evaluations it may be decided whether, for a relatively minor crime, a person is put on probation or segregated, perhaps for the rest of his life, since under most laws he must remain until psychiatric and other studies indicate that he is safe to return to the community. The attempt to stipulate complete recovery or cure has caused considerable trouble. The best laws allow the judgment to be about like that of a good parole board, namely that the patient is now a good risk.

Brancale and Bixby's recent article(4) describes the handling of sex criminals under the New Jersey law as "an awkward but practical combination of legal rights and clinical evaluation and treatment." These provisions do not interfere with the due proc-

ess of law during the trial nor with the maximum term beyond which the offender may not be deprived of his liberty; nor do they require more clinical science than is now available. They do require an extensive psychiatric and other detailed study of convicted sex offenders at the New Jersey Diagnostic Center, which for due evidence of mental, emotional or physical aberration recommends to the court either probation under outpatient psychiatric treatment or commitment to a state hospital for treatment not to exceed the maximum penal term for the particular crime. The New Jersey law avoids use of the word 'cure' and leaves to special professional boards the matter of the patient's readiness to return to the community.

Conclusions

From this brief review of the sex psychopath laws as they operate in more than half of the 49 United States jurisdictions, we suggest the following recommendations.

The procedure as now carried out in some states corresponds to the ordinary commitment of a patient, under noncriminal codes, to a mental hospital, where diagnostic studies and treatment are carried out. After periodic treatment reviews, the patient is judged to be a good enough risk to try living outside, and he is put on parole. There will be some failures, but these are to be expected with any type of handling and treatment.

What is wrong is a prevalent idea, found in many early special laws, that magic tests and formulas enable the making of 100% accurate predictions. No professional staff or board can state positively that an individual will never repeat an antisocial act.

In many states the sexually deviated person is taken out of the criminal group and dealt with under civil law. This is the concept of mental illness and treatment as against that of crime and punishment.

Summary

Our review of the status of sex psychopath laws, brought up to date, shows the addition of special laws in 3 states, Florida, Iowa and West Virginia, bringing the total number to 27 jurisdictions. The laws in a dozen or so states have been changed or revised, varying from a whole new law in Illinois to minor changes in New Hampshire and other states. Several states reported bills for revision pending. Appellate court decisions, in general, support the constitutionality of these laws and the trial procedures. Trends in the laws and their administration point to more satisfactory treatment results than reported earlier; a low rate of recidivism; more use of probation, at times with outpatient psychiatric treatment and supervision; release of patients on parole as good risks; and the extension in a few states of diagnostic studies and treatment to persons convicted of serious crimes other than sex crimes.

We acknowledge gratefully the help and cooperation of many state agencies in supplying us with current information on sex offense legislation.

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P.M.-G.M. SUCCINYLCHOLINE-MODIFIED ELECTRO-SHOCKTHERAPY WITHOUT BARBITURATES[1]

DAVID J. IMPASTATO, M.D.[2] AND ANTHONY R. GABRIEL, M.D.

INTRODUCTION

Electroshocktherapy (EST) is now universally established as an important therapeutic arm in psychiatry. This recognition was established only after it was repeatedly demonstrated upon thousands and thousands of patients that "EST effectually eliminates suicidal risk within a few days; makes tube feeding unnecessary; and in the vast majority of patients terminates depressive episodes within 3 or 4 weeks"(1). EST is effective in any psychosis of acute onset. It has been used as a life-saving procedure in acute manias with extreme hyperactivity, dehydration and fever. It has also been used in the management of physically ill poor-risk patients to render them less hostile and more cooperative so that proper medical treatment can be given(2). The medical visiting staff of mental hospitals are well aware of this use of EST and will often insist that a patient be given EST though the psychiatrist is hesitant in so doing. They have often witnessed the miracle of the dying man coming back to life after a few treatments. EST is such a reliable therapeutic tool that psychiatry could not function properly without it. Any psychiatrist not availing himself of EST can be justly accused of doing an injustice to at least some of his patients.

From the very beginning in 1938(3) electroshocktherapy has been frequently modified to reduce or eliminate undesirable aspects or complications. Succinylcholine (SCC), first used in 1952(4) is a more recent modifier of EST, which when properly used eliminates fractures in almost 100% of all patients.

As first used, SCC was given in doses of 20 mg. or larger. This caused complete paralysis and apnea, requiring oxygen. In the process, from 5 to 10 seconds after the injection, the patient first felt the painful sensations of muscular twitchings caused by initial depolarization of the motor end-plates and a few seconds later, a feeling of suffocation, from respiratory paralysis; which he endured for 30 seconds or longer, till the GM was given. On recovering from the convulsion, the patient remembered the feeling of suffocation, and in more instances than not, refused to continue with the treatment. To avoid these undesirable side actions, anesthesia with ultrashort acting barbiturates was proposed(5). The barbiturates are given in 2.5 to 5% solution by the syringe method, or in lesser concentration by intravenous drip. With the latter, the patient is placed in a deep level of anesthesia with relatively high doses of barbiturates. With the syringe method, smaller doses of the anesthetic are used and the depth of anesthesia is relatively more superficial. With either method, especially the drip, the apnea was prolonged.

The drip method of anesthesia was brought directly to the EST unit by the hospital anesthetist, who, used to the management of prolonged apnea in the operating room, saw no unnecessary danger, or immediate necessity, to modify his technic so as to avoid apnea. The cooperating psychiatrist extremely alarmed and anxious at the sight of his patient lying motionless and breathless, was very thankful that the trained anesthetist was standing by to manage the dreadful complication.

For most patients, the anesthesiologist uses relatively large doses of SCC—40 mg. or more. His apparent intent is to so completely paralyze the patient that not a single muscle twitches. Why complete paralysis is necessary to prevent fractures is a profound mystery to most psychiatrists as they have proved time and time again that partial paralysis is sufficient to prevent fractures in nearly 100% of all EST patients.

Barbiturates are strong central respiratory depressants and capable, in certain patients, of producing death even in small doses.

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[1] Read before The Society of Biological Psychiatry, Annual Meeting, June 15, 1957 at Atlantic City, New Jersey.

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Muscle relaxants, through their central actions, may also depress the respiratory center and also produce death. In fact, death from muscle relaxants, at least in the past, has not been uncommon. One of us collected from the literature, 6 instances wherein patients, in the process of being premedicated for EST, died after the muscle relaxant was given but before the EST. In fact no EST was given; with the possible exception of one patient who was probably dead when the EST was given. None of these patients received SCC. In a group of 254 EST fatalities which one of us recently reported(6) at the First Annual Meeting of the Eastern Psychiatric Research Association in October, 1956, 39 of these patients had received muscle relaxants. This represents an unduly high percentage as most of these fatalities occurred before the advent of SCC, during which time relatively few patients were receiving muscle relaxants.

To summarize, we have seen that barbiturates are dangerous, and muscle relaxants are dangerous; and when the two are given together the danger is compounded. These drugs regularly cause apnea which has made a good number of psychiatrists abstain from using them. Other psychiatrists will use them only if an anesthetist gives them and manages the resulting apnea. The various methods of giving these drugs and of the subsequent management of the patient are cumbersome and time consuming, costly, and do not lend themselves to treating many patients within a short period of time.

Murray(7) has for some time advocated the use of SCC alone, without barbiturates in EST. He calls attention to the disadvantages of barbiturates in combination with SCC. Using small doses of SCC (10-15 mg.) and giving the convulsion 10 seconds after the onset of fibrillations, he has obtained excellent results in over 2000 patients. Murray has had no difficulty with his treatments; yet, others who have tried to give them have been unable to frustrate the feeling of suffocation and fear which most of the patients developed. Murray's method strongly appealed to us. We thought that it would be an ideal treatment if the feeling of suffocation could be prevented. It occurred to one of us that, if perhaps, soon after the SCC injection, the patient was rendered unconscious with a petit mal stimulation, he would not recall the feeling of suffocation. This idea proved to be correct on the very first trial(8), and gave rise to the PM-GM technic.

PM-GM MODIFICATION

The PM-GM technic is as follows: The patient is selected and prepared for EST in the usual manner. One-half hour prior to the treatment he is given 1.2 mg. (1/50 grain) of atropine either intramuscularly or sublingually. When this is not feasible the atropine may be given intravenously, from a separate syringe just before the SCC injection. If the Molac AC machine(9) is being used it is set at the Medium position. Ten mg. of SCC is now quickly given intravenously using preferably a tuberculin syringe and a 26-gauge hypodermic needle. When fibrillations are noted about the patient's mouth, or when he shows signs of impaired breathing (within 5 to 10 seconds after the injection) the petit mal stimulation is given. The patient may react to the petit mal by raising his hands toward the electrodes or muttering a word or two. This he does not recall after the grand mal treatment. He now remains motionless and without breathing, as in a state of suspended animation. Ten to 15 seconds after the petit mal, the grand mal stimulation is given in the usual manner. Adequate relaxation occurs in practically all patients. In the few patients in whom more relaxation is needed a few more milligrams of SCC may be given on the next treatment. The convulsion proceeds in the usual manner of SCC-modified convulsions except that invariably the patient is either breathing by the end of the convulsion or begins to breathe a few seconds later. At no time does be suffer from cyanosis. Since he breathes spontaneously he does not need oxygen nor the help of an anesthetist. The breathing here actually returns sooner than with unmodified EST. The psychiatrist not confronted with a motionless, breathless, cyanotic patient, is no longer alarmed at the idea of administering SCC by himself. Following the convulsion the patient recovers quickly since he has not received barbiturates. He is usually confused

and denies having had a treatment; later, when clearer he may remember it, but the only thing he clearly recalls is the injection. We have used the Molac II AC machine [8] in our treatments but the PM-GM may be given with any shock machine available. With the ordinary Cerletti-Bini AC apparatus a setting of 110 volts for 1/10 of a second will produce an adequate petit mal in most patients. Occasionally in a few patients with extremely low convulsive thresholds, the petit mal will precipitate a convulsion. When this occurs, the convulsion is usually mild and carries little risk of causing a fracture. It is very important that the petit mal be severe enough to obliterate consciousness, for if it does not, the events from the time of the injection to the time of the GM stimulation may be recalled disagreeably.

In the PM-GM method we are confronted with a choice of giving a petit mal of sufficient strength to obliterate memory, but which in a few patients may cause a convulsion; or giving a weaker petit mal, which will not produce a convulsion but which may not cause complete unconsciousness. In the latter instance, the patient may recall the unpleasant sensations of both the SCC and the petit mal and develop fear of the treatment. Of the two alternatives the better one to follow is to make sure that the petit mal is strong enough to produce complete unconsciousness. When the PM causes a convulsion, the electric dosage can be lowered at the next treatment to avoid the convulsion.

TECHNIC WITH UNIDIRECTIONAL CURRENT MACHINES

With unidirectional current machines, two technics may be used: for the petit mal the machine is preset at the full range, that is 20 ma., 10 mg. of the succinylcholine is given and 5 to 10 seconds later the treatment switch is quickly turned on and off. Ten to 15 seconds later, the GM is given beginning at 15 ma. and raising it to 20 ma. within a few seconds, and proceeding in the usual manner. In the second technic, the machine is set at 15 ma.; the succinylcholine injection is given; 5 to 10 seconds later, the current turned on. The milliamperage is kept steady at 15 ma. for 5 or more seconds, then gradually raised within another 5 seconds to 20 ma. and held there till the patient enters the tonic phase of the convulsion. Here apparently no petit mal is actually given. In effect, however, the prolonged induction time, from the time the current is turned on till the patient enters the tonic phase, 10 or more seconds, can be considered a fractionated long-lasting petit mal. We have found both of these technics effective, but prefer the latter method.

[8] Manufactured by Reuben Reiter, D. Sc., 64 West 48th Street, N. Y. C.

RESULTS

We have successfully given the PM-GM treatment to 150 patients in private practice and to 65 patients at Bellevue Hospital without encountering any post-convulsive apnea lasting more than 10-15 seconds; without once having had to use oxygen; without having any complaints of back pain which might be indicative of a fracture, and without producing a single fracture. (Only the Bellevue Hospital patients had X-rays pre- and post-treatment.)

COMPLICATIONS

The results with the PM-GM technic compared favorably with 145 patients treated at Bellevue Hospital with the Molac II and premedicated with a mixture of atropine sulfate 0.8 mg., (1/75 gr.), thiopental (Pentothal) or thiamylal (Surital) 100 mg. and succinylcholine (Anectine) 20 mg. (all given in the same syringe) in which not a single patient complained of pain or sustained a fracture. All of these patients however had post-convulsive apnea of varying duration, lasting up to 10 minutes, for which oxygen was necessary.

Few patients developed fear of the treatment. Relatively more of those treated at Bellevue Hospital developed fear, than of those treated in private practice. This discrepancy is due to the fact that at Bellevue the treatments were given by various residents who were not expert in the technic; while one of us treated all the private patients.

Study of the patients showing fear indicates that fear is not due to the method of

treatment, but to a predisposition of the patient, and to imperfect technic. It may be avoided by adequate management; by assuring that the petit mal is strong enough to cause loss of consciousness; and by preoxygenation (5 to 8 deep breaths of pure oxygen before the succinylcholine is injected(10)).

Summary and Conclusions

PM-GM Succinylcholine-modified electroshocktherapy without barbiturates has the following advantages:

1. Only 10 mg. of succinylcholine are needed to produce sufficient relaxation to prevent fractures in practically 100% of all patients.

2. It dispenses entirely with the need of barbiturates.

3. It does not produce any more apnea than is produced following an unmodified alternating current treatment. In fact, due to the laryngeal relaxation produced by the SCC, patients breathe sooner and better with the PM-GM method than after unmodified alternating current treatment.

4. There is no need of oxygen following the convulsion.

5. The technic is very simple, and requires the least personnel for its administration. The psychiatrist can effectively give the treatment himself assisted only by one nurse. It can be given to a large number of patients within a short time.

6. Following the convulsion the patients are awake and clear within a relatively short time. This is advantageous in ambulatory patients.

7. Study of the problem of fear which occurs in a small number of patients with this method shows that the fear produced is not due to the method itself, but is inherent in the patient and sometimes is caused by imperfect treatment technic. Suggestions as to how to avoid fear are made.

8. We believe that the PM-GM technic is the safest electroshocktherapy technic so far developed and recommend its use.

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DISCUSSION

William Karliner, M. D. (Scarsdale, N. Y.).—The PM-GM method described by Impastato stimulated my own work and enabled me to gather valuable experience in approximately 3,000 treatments I have given with some modification of this method.

I would like to stress a thought expressed by Impastato, that electroshocktherapy is an "effective tool and that psychiatry could not function properly without it." With all the experience gained from, and the progress made by, all forms of psychotherapies and various drugs including the tranquilizers, there is still no medication or other form of treatment that can terminate an acute affective episode as rapidly and thoroughly as electroshocktherapy. Impastato therefore is to be congratulated for having introduced a modification of EST which practically eliminates all complications, eliminates almost all physical contraindications, and is void of undesirable side actions.

In a paper by Emma and myself published in the *Journal of Nervous and Mental Disease,* endotracheal intubation was necessary 5 times in a 51-year-old man who received 23 electroshock treatments modified by Pentothal anesthesia and succinylcholine. When Pentothal was omitted and the dose of succinylcholine was reduced, this same patient had better muscular relaxation and started breathing spontaneously after the end of the convulsion.

One patient who received 150 mg. Pentothal and 10 mg. succinylcholine developed a severe rash and angioneurotic edema during one EST. When Pentothal was omitted during the next few treatments, there was no recurrence of the above symptoms.

Impastato mentioned that the PM-GM may be given with any electroshock machine available. I have found that a machine (AC current) with built-in adjustable voltage and automatic timing is superior to one where the petit mal stimulation is given by pressing down on the treatment button and then quickly releasing it. The ideal setting for PM stimulation in an ordinary AC apparatus is 100 volts and 1/10 of a second. This setting will not

precipitate a convulsion and increase the possibility of a fracture at a time before succinylcholine has reached its maximum effect of muscular relaxation. This setting on the other hand, is strong enough to render the patient stunned or unconscious and therefore unable to perceive the unpleasant side-effects of succinylcholine. On some occasions, I found it necessary to give 2 PM stimulations in close succession, that is, if the patient is too restless and too hard to hold down during the 20 to 30 seconds one has to wait for the GM stimulation which follows.

PM-GM succinylcholine-modified electroshock therapy without barbiturates eliminates or greatly reduces the post-convulsive apnea. Succinylcholine does not alter the beneficial effect of electroshock. The dose of succinylcholine can be decreased considerably because when used alone without a barbiturate, equal or better relaxation is obtained.

I encountered no complications and no fatalities in all the treatments I gave with this method. I was able to treat patients with severe skeletal and cardiovascular pathology, whose physical condition previously would have contraindicated the use of electroshock.

This method enables us to treat a larger number of patients, since much less time is needed to carry out the procedure. Finally, it is important to note that this modification reduces or eliminates the threat of malpractice suits.

OF SCHIZOPHRENIA AND THE SCHIZOPHRENIC[1]

VERNON KINROSS-WRIGHT, M.D., AND EUGEN KAHN, M.D.[2]

The theme of this Congress demonstrates clearly the persistent vitality of dementia praecox, since 1911 better known as the group of schizophrenias. The several clinical pictures classically described by Kraepelin and Bleuler have not changed. However, interest in schizophrenia simplex has waned despite the challenging paper of Diem and the pertinent efforts of Wyrsch. The statements of Manfred Bleuler in the 9th edition of Eugen Bleuler's textbook are almost identical with the description of schizophrenia simplex in the latter's monograph.

E. Bleuler's *Grundsymptome* (basic symptoms) common to all forms of schizophrenia of course hold true for the simple type, particularly the disturbance of thinking and the affective deterioration, and also the ambivalence.

There are a number of reasons for the neglect accorded to schizophrenia simplex in the clinic and in the literature. The disease is symptomatically colorless though occasionally enlivened by neurotic and psychopathic features. The diagnosis is frequently missed because of clinical inexperience, therapeutic over-optimism or uncritical psychoanalytic attitudes. Schizophrenia simplex lacks the fascination to the average clinician of, say, the paranoid variety.[3]

The formulations of Kraepelin and E. Bleuler still fill a deep clinical need. Were nosological considerations to be thrown overboard, the quest for etiology would be seriously imperilled. In so doing, psychiatry would relinquish its claim to being a science and reduce its expectation of discovering means of cure and prevention. While we realize the importance of factors which are not so far accessible to the application of the cause and effect method, we believe that overemphasis or even exclusive preoccupation with these makes a mockery of sound clinical psychiatry. Indeed by some, the application of scientific principle to psychiatry is held to be obsolete. These psychiatrists claim to uncover facts by using a variety of phenomenological methods, overlooking the axiom that facts cannot but be the effects of preceding facts—which we call causes.

Schizophrenia is diagnosed on the basis of clinical findings which include response to treatment. There is considerable, though not universal, agreement concerning the symptoms which justify the diagnosis. There are personal differences in the attitude of the physicians. Some do not believe in schizophrenia; others assume that with this diagnosis all therapeutic, especially psychotherapeutic efforts are handicapped or even made illusory; there are, no doubt, a number of doctors who are simply afraid of making the diagnosis.

It is not generally known, or rather, not admitted that schizophrenia may spontaneously heal as well as arrest itself at any stage. Reports of recoveries and complete cures are still controversial. While there are authors who believe in complete cures, the majority know only social remissions. Kraepelin held that quite a few schizophrenics recovered fully. E. Bleuler was reluctant to admit of complete recovery. M. Bleuler assumes that one quarter of the schizophrenias make a social recovery, while one half heal with some defect, and the remainder deteriorate into the classical state of affective dementia. The late Frieda Fromm-Reichmann, after many years of intensive experience in analytical psychotherapy, apparently considered social recovery in one fifth of her chronic schizophrenias and improvement in about one half of them a fair result.

One should not disregard E. Bleuler's notion that the clinical picture, *e.g.*, a paranoid one, may persist after the active disease process—whatever that may be—seems to

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[1] Read at the International Congress of Psychiatry, Zurich, 1957.

[2] Respectively Assoc. Prof. of Psychiatry and Prof. of Psychiatry, Baylor Univ. College of Medicine, Houston, Tex.

[3] It is impossible to estimate how many cases of schizophrenia simplex are given years of psychotherapy under the label of psychoneurosis. Many additional cases in this era pass under the name of ambulatory schizophrenia.

have been arrested. Wyrsch does "not believe that there is in the terminal stages still any organic process active." On the other hand, the disease process may continue under the surface after the disappearance of a characteristic clinical picture. One of us (K-W) has repeatedly observed the complete disappearance of paranoid syndromes under treatment with tranquillizing drugs. There was no cogent reason for assuming that the schizophrenia itself was cured—the less so as the former clinical picture promptly returned following withdrawal of the drug. We realize that this is not an unique observation.[4]

We are of the opinion that from an etiological clinical viewpoint schizophrenia simplex[5] forms the matrix, the heart, of all the multifarious disease pictures included under the name schizophrenia. In this simple type only, the basic symptoms are observable, free from obscuring accessory symptoms. In other varieties of schizophrenia the change in affect, even when gross, and the thinking disturbance are frequently camouflaged. When time or treatment removes the cloak of accessory symptoms, the icing on the cake, so to speak, schizophrenia simplex is readily apparent. It scarcely needs to be said that the condition is then usually referred to as partial remission, ambulatory schizophrenia or chronic schizophrenic deterioration depending on degree of severity.

It has often been observed that simple schizophrenia is more common in men than in women. We consider that this sex difference is a spurious one. Society demands productivity and self-sufficiency in the male and their absence, by virtue of simple schizophrenia, causes early concern. In women, on the other hand, passivity and lack of drive are socially less crippling, indeed are expected to a certain extent, in western cultures.[6] For this reason the existence of simple schizophrenia may easily pass unnoticed.

The essence of schizophrenia, clinically speaking, is to be sought in schizophrenia simplex.[7] It is manifested primarily in the affective change and disturbance of thinking, due presumably to biological alterations of which we are ignorant at the present time.

It is of profound importance that the distinction be clearly drawn between *schizophrenia the disease,* and the *schizophrenic person.* It is a platitude to say that those ailing of schizophrenia are schizophrenics. However, we must separate the two in our thinking to reach tenable conclusions about them. Many of the unprofitable attitudes held toward schizophrenia stem from our failure to do so. We may highlight the distinction by emphasizing that the schizophrenic has attitudes, while schizophrenia is built up of symptoms. This is a special case of patient versus disease. The one is a person, the other an abstraction.

The grand master of clinical psychiatry, Kraepelin, never denied that the clinician was always confronted with the problem of a sick person, despite his great emphasis on constructing a systematic nosology of well-delineated disease patterns. Eugen Bleuler took considerable pains to come to some understanding of his patients' symptoms. More recently, phenomenological, psychoanalytical and biological investigations have been increasingly focussed upon the patient as a person. Wyrsch's book *The Person of the Schizophrenic* (1949) is worthy of note. He used methods of clinic, phenomenology and existential analysis in order to come to a balanced attitude towards the schizophrenic person and towards the change he,

[4] In this context, it is worth recalling that schizophrenia simplex is refractory to any kind of treatment.

[5] Kraepelin's definition: "gradually increasing impoverishment and depletion (Veroedung) of all psychic life." E. Bleuler's definition: "dementia in the sense of schizophrenia quite gradually increasing over decades." M. Bleuler (1955): "Where there are only the basic symptoms to be seen we talk of schizophrenia simplex."

[6] Benedetti, *et al.,* emphasize "that basic symptoms and courses of schizophrenia are very similar even under very different social conditions." They assume that the basic symptoms and courses have been shown independent of "culture" (authors' quotation marks).

[7] E. Bleuler discusses a "latent schizophrenia" which mostly, but not exclusively seems to belong to the simple form. He even believes "that it is the most frequent form although it rarely comes to treatment as schizophrenia," but as "neurotics of various kinds, as degenerates etc." We may add that many so-called schizoids are probably suffering from latent or simple schizophrenia.

his world and his way of experiencing are undergoing. Wyrsch's warning: "Schizophrenia is a disease of the person; the person cannot be dissolved in psychological parts" was and still is timely.

Wyrsch was cautious in applying existential analytic notions. This cannot be said of all psychiatrists who committed themselves to the increasing interest in the schizophrenic person. They, with Ludwig Binswanger in the lead, leaned heavily on the individualistic philosophical trend started by Kierkegaard and continued in our own time by Heidegger. Psychoanalysts and existential analysts have gorged themselves, their students and readers with interpretations, often preposterous, of the schizophrenic's self and of his perception of the world. All experiences of the schizophrenic had to be explained at any cost in logic or adherence to the facts. Any interpretation which even presumed to explain the "reasons" why the patient became sick, was welcomed. Concepts of motivation were adjusted to preconceived interpretations in a procrustean fashion. These interpretations in their turn were often confused with facts and acquired a false etiological status. The law of cause and effect was frequently distorted or disregarded. The concept of schizophrenia, the disease, was all but destroyed in the process of interpreting the schizophrenic's experiencing.

Who then is the schizophrenic person? He cannot be measured directly by clinical investigations or laboratory techniques. The schizophrenic cannot be diagnosed as the disease schizophrenia is. *The schizophrenic person is recognized.* He is readily recognized by those with psychiatric experience, especially in the diagnosing of schizophrenia. He is not perceived as schizophrenic because he *has* schizophrenia, but because of his unusual, bizarre, twisted manner of behaving, his oral expressions and sundry peculiarities of communication, together with his obviously different experiencing of the world.

The schizophrenic person is not necessarily characterized by strange ideas or alien aspirations. Often his aspirations are vague or low. However, he tends to appear peculiar to others since they are unable to enter his world via the pathway of normal human relationships. The peculiarity of the schizophrenic's own world easily passes unnoticed for the very reason that the "outsider" cannot enter. When accessory symptoms color his behavior the strangeness of his world becomes obvious. Occasionally striking traits and high aspirations are seen instead of the more common flatness and unproductivity. Eugen Bleuler said significantly, "There are many simple schizophrenics among the eccentrics of all kinds—world improvers, philosophers, writers and artists and degenerates." Such occurrences must be properly viewed. They are not symptoms of schizophrenia but individual adjustments to the change of the self and of the world in schizophrenic persons gifted in various ways.

An increasing passivity, which may be preceded by panicky preoccupations of various kinds may well be considered the *essence of the schizophrenic individual.* There is in most instances an increasing monotony of experiencing and lack of flexibility in dealing with life situations. The majority of them do not appear to suffer under this passivity though for a while they may attempt to mask it by appearing busy or interested in special projects. Sometimes anxiety about the passivity leads to paranoid elements in their interpersonal relationships. Wyrsch has emphasized that most of these patients—particularly those with the actual diagnosis of "schizophrenia simplex"—are unconcerned about being in a blind alley. They may blame others, become hypochondriacal or quarrelsome, but they do not seem to worry about their insufficiency.

Schizophrenia is not a way of experiencing or a way of existence (Daseinsweise) but a nosological concept, a disease. It was formulated by the use of clinical, nosological methods. It may be investigated further by following the well-defined avenues of scientific research, from the clinical to the biochemical. As applied to this particular problem, it is true they are in need of considerable refinement.

On the other hand, the experiences and the way of existence of the schizophrenic may be approached psychologically or sociologically, and, with discrimination, philo-

sophically. To what extent these methods will lead in the development of a psychotherapy for schizophrenics is debatable.

We have attempted a separation of schizophrenia and the schizophrenic which may seem artificial. In fact, we *are* dealing with two different topics and, most definitely with different approaches. Many an error and many a misunderstanding could have been avoided if here—as elsewhere—the disease and the patient had been approached from appropriate and distinct viewpoints. We still try to find physiological therapeutic methods to combat schizophrenia. They are not sufficient for the physician who is faced with the schizophrenic and who desires to help his patient find a way through a greatly disturbed life. It will depend as much on the assets and liabilities of the physician as on those of the patient which manner of treatment—of personal, psychological treatment—is chosen. The physician is not an unchangeable figure in the relationship which develops during the therapeutic procedure. He must become aware of changes in himself and in his patient, and also of the patient's concern for these changes. This, it seems to us, is one of the notable advances made since the culmination of the descriptive clinical period. Description alone does not suffice; an increasingly keen awareness of the dynamics, using the term in the very broadest sense, is always needed. This progress, vital as it is, could not have been accomplished without the foundations of clinical psychiatry laid down by Kraepelin

BREATHING DEFICIT, ALLERGY, AND ALCOHOLISM

NORMAN G. HAWKINS, PH. D.[1]

During a series of interviews with alcoholic tuberculosis patients it had been noted that physical disabilities were often discussed, the more frequent being sinusitis, broken noses resulting in defective breathing, and other ailments concerning the respiratory tract. No systematic record of these matters had been kept, but at one point 5 highly similar cases called attention to some interesting facts. These 5 were all from the lower socioeconomic level, 4 had tried Alcoholics Anonymous and failed, all had appeared at first to be cooperative patients and then had exhibited unpredictable and exasperating behavior. They also showed in marked degree the insomnia, tension, hopelessness, and accident proneness mentioned by Bacon (1). Four had deviated nasal septa, the alcoholism in each of these had apparently developed after the nasal trauma, and in 3 cases both breathing difficulty and bizarre behavior subsided following antihistamine therapy. Further analysis of these cases showed that at times alcohol had been used consciously as a sedative and analgesic.

One case which illustrates well the relationship of bodily and psychological elements is that of a 51-year-old foreign male who had lost his father at 3 years of age. He was divorced, had only 7 years of schooling, and had never done anything except unskilled labor. The clinical history reads in part:

Since his pneumonia he has had intermittent episodes of pleuritic type chest pain which migrates from one side to the other and these have progressed within the past few months.

Over the past 6 months or so he has noted some exertional dyspnea and 3 months prior to admission he voluntarily and quite suddenly quit drinking. Since that time, he states that despite a farily good appetite, he has suddenly lost weight in the amount of 25 lbs. He had increasing weakness and shortness of breath. A friend advised him to take some blood tonic, which he did. Subsequently about a month ago he developed postprandial cramps and watery diarrhea. . . .

The patient states that he has always been in fairly good health and his only operation was for sinus trouble 4 years ago. . . .

The patient arrived at the sanatorium with far advanced tuberculosis, indicating that the disease had been progressing for some time before he finally gave up drinking. His nasal septum was badly deviated. Chronic rhinitis and allergic nasal tissue were demonstrated by the otorhinologist. Frequent medication for colds was required while he was under treatment for tuberculosis. The left nostril was consistently blocked. After 6 weeks he began complaining of nausea, vomiting, constipation, severe abdominal pains, and other signs which physicians found equivocal in meaning.

He was ordinarily cooperative, courteous, and very presentable. When his physical discomforts became numerous, however, he displayed intransigent and unmanageable behavior. On two such occasions he drank heavily and afterward appeared calm. Nevertheless he expressed a strong desire to abstain from drink.

Following medication with antihistaminics and sedatives the physical distress of this patient cleared up. At the same time his contentious behavior and his compulsion to drink disappeared and he had remained calm thereafter for 11 weeks. Part of this result was undoubtedly due to the fact he was no longer tormented by insomnia. When questioned about sleeplessness he recalled increasing difficulty during the early twenties. He also recalled his first sinus trouble and colds at about that age. From the late twenties to his early forties he could not recall being seriously bothered.

The possibility in this case and less clearly in others, of a respiratory defect and related allergic conditions setting in motion a cycle which interfered with physical, emotional, and finally social performance, was intriguing in view of some scattered observations concerning alcohol.

At one time alcohol was used in Europe in the treatment of tuberculosis, and it has been used widely and with good results in easing the pains of childbirth. Two generations ago it was a common remedy for acute respiratory infections and is still employed in some areas for the relief of asthma. The observations by Cathell(2) are pertinent here, as a number of his patients exhibited respiratory and allergic tissue changes. Stern(3) has reported decreased craving and increased tolerance in a few cases treated by pyrilamine maleate, but apparently without enduring effects. A very extensive analysis by Randolph(4) touched upon such allergic condi-

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tions as food dyscrasias, rashes, and respiratory complaints (*e.g.*, rhinitis and asthma).

As a result of these case observations and the few indications concerning alcohol and alcoholism which seemed applicable, it was hypothesized that respiratory distress either allergic in nature or with related allergy is associated with alcoholic careers.

METHOD

In order to investigate the hypothesis, the records of discharged tuberculosis cases (numbering approximately 6,000) from Firland Sanatorium in Seattle were first classified by sex and by the presence or absence of the diagnosis of alcoholism and all cases under 25 years of age eliminated. The 4 classes were then sampled, 25 from each, using the random tables by Edwards(5) applied to the file numbers.

The records of the 100 discharged patients were investigated for evidence of the following: remarkable frequency or severity of colds, sinusitis or chronic postnasal drip, nasal obstruction, asthma, hay fever, deviated septum, and allergic nasal tissue. Gastric and skin allergies were tabulated for comparison. In all instances there were 2 criteria of evidence, either a notation in the clinical history at the time of admission or subsequent findings by consultant specialists. These clinical judgments were ordinarily verified by objective procedures, but in any case the records were taken as conclusive.

The data were treated by Chi-square. Each comparison was dichotomized as a fourfold table, so the Chi-square calculations were in instance corrected for continuity. Phi-coefficients of association were computed from significant Chi-square values.

FINDINGS

Table 1 shows the incidence of respiratory complaints by sex, age range, and alcoholic diagnosis. A total of 49 had one or more of the types of respiratory complaint. The sex comparison produced a Chi-square of 1.44, the age comparison a Chi-square of 0.60, and the diagnostic division a value of 19.37; the first and second were not significant at the .05 level while the last was significant at the .001 level. The Phi-coefficient of association between alcoholism and one or more complaints was 0.44 (approximately equivalent to 0.60 for Pearsonian correlation). For multiple complaints the sex and age comparisons were again insignificant but the diagnostic distribution produced a Chi-square value of 10.09, significant at the .005 level, and a value of 0.32 for the Phi-coefficient.

TABLE 1

OCCURRENCE OF RESPIRATORY COMPLAINTS BY SEX, AGE RANGE AND ALCOHOLIC DIAGNOSIS AMONG TUBERCULOSIS PATIENTS [1]

	Cases	Any complaint [2]	Multiple complaints [3]
Males	50	28	8
Females	50	21	6
Under age 45	40	22	7
Age 45 or over	60	27	7
Alcoholics	50	36	13
Nonalcoholics	50	13	1

[1] Data from clinical records and progress reports of a random sample of 100 discharged cases, stratified by sex and diagnosis, from Firland Sanatorium, Seattle.
[2] At least one of the following: remarkably frequent or severe colds, sinusitis or postnasal drip, deviated septum, asthma, hay fever, or allergic nasal tissue; as noted in discharge records.
[3] Three or more of the complaints enumerated above.

The alcoholics and nonalcoholics were compared on individual complaints as well. Sinus trouble was suffered by 26, of whom 18 were alcoholics. The difference showed a Chi-square of 4.21 (significant at the .05 level) and a value of 0.20 for the Phi-coefficient. Colds notable for frequency or severity were recorded in the histories of 31 and 25 of these were alcoholics; a Chi-square of 15.15 (significant at the .001 level) and Phi-coefficient of 0.39 were yielded by this comparison. Hay fever, asthma, and allergic nasal tissue were too infrequent for analysis as only 7 alcoholics and 2 nonalcoholics had histories of those ailments. Deviated nasal septum was found among 11 alcoholics and 2 nonalcoholics. This comparison gave a Chi-square value of 5.69 (.05 level of significance) and Phi-coefficient of 0.24. The same figures and same resulting statistics applied to nasal obstruction, but deviated septum and obstruction were not invariably coexistent.

Respiratory allergy was then compared with the incidence of gastrointestinal and skin allergies. The data are shown in table 2. A total of 15 alcoholics and 4 nonalcoholics had one or both. The comparison of "other"

TABLE 2

INCIDENCE OF CERTAIN ALLERGIC CONDITIONS [1] AND MEAN AGES AMONG ALCOHOLIC AND NON-ALCOHOLIC TUBERCULOSIS PATIENTS

	Alcoholics	Non-alcoholics
Respiratory only [2]	5	2
Other only [3]	8	2
Both types	2	—
Neither	35	46
Mean age	41.5	44.1

[1] Data from clinical records and progress reports of a random sample of 100 discharged cases, stratified by sex and diagnosis, from Firland Sanatorium, Seattle.
[2] At least one of the following: hay fever, asthma, or allergic nasal tissue by diagnostic standards.
[3] Gastrointestinal or skin allergy by diagnostic standards.

allergies (including the "both" category) yielded a Chi-square of 4.67 (significant at the .05 level) and the 2 classes combined had a value of 6.71 (significant at the .01 level). The Phi-coefficients were 0.19 and 0.26 respectively. Allergies, then, were of the same order as deviated septum and nasal obstruction in typifying the alcoholics.

Those having 2 or more allergic complaints, numbering 24, were then classified as to whether they also exhibited allergies. The total sample produced a Chi-square of 5.44 and Phi-coefficient of 0.23 of association between respiratory conditions and allergy; the corresponding figures were 4.84 and 0.22 for alcoholics. In the comparision of sinus trouble and allergy there was a Chi-square of 18.17 (significant at the .001 level) and Phi-coefficient of 0.43 for all cases and a Chi-square of 3.89 (significant at the .05 level) and Phi-coefficient of 0.27 for alcoholics. Allergy was distributed according to chance among those with remarkable histories of colds and other cross-classifications were too small for analysis.

DISCUSSION

The study was conducted in retrospect. It is quite possible that a team of clinicians, starting with the research goal in mind, and making independent observations, would have reached quite different ends. On the other hand it is not likely that a diagnosis of alcoholism caused a variety of observers over a period of several years to perceive systematically in the manner indicated by the results. As to the diagnosis of alcoholism itself it is true that standards vary, but experience at Firland has indicated that there is a consistent tendency toward underenumeration, so that a rigorous classification could be expected to produce more marked distinctions.

There is also the possibility that other disorders such as venereal disease, peptic ulcer, and various cardiovascular ailments would distinguish alcoholics even more than those studied. No such data would invalidate the study, but there were other cogent reasons for not extending the analysis. The list of possible alternatives is very long. Furthermore, many disorders are not as easily investigated as respiratory complaints and not as likely to have been consistently noted by specialists in the treatment of tuberculosis.

Assuming that the data did not contain some artifact, there are still several possible interpretations. The association seen may apply only to those alcoholics who become tuberculosis patients, or possibly those having any complication of a chronic nature. Since the distribution of the ailments studied in the general population is not known, it could be that alcoholic tuberculosis cases are normal and others are below normal. Or it may be that the situation applies only to one social level of alcoholics, as tuberculosis is definitely a disease of the skid road area and of high prevalence in jails and similar institutions.

In addition to these qualifications of the findings, the study revealed nothing about sequence or about the way physical complaints may have interacted with psychological factors. The case records could not be used to show how many alcoholics may have had one or more of the complaints prior to pathological drinking and how many may have been pathological drinkers first. It may be that in the majority the two went hand in hand. Alcoholism could easily increase the frequency of colds or their severity. A deviated septum is ordinarily the result of a blow and hence could be expected more frequently among alcoholics.

In spite of these limitations the hypothesis was tenable under the circumstances in which it was tested. The investigation of some cases under treatment at the time indicated at least the possibility that breathing

deficit had ocurred either early in the alcoholic career or prior to its beginning. It is this fact which makes the hypothesis worthy of further investigation.

It has been noted by Manson(6), Williams (7), and Tiebout(8) that anxiety and tension are characteristic signs of alcholism. Williams and Tiebout were in agreement that psychophysical symptoms had caused heightened anxiety and tension preceding the onset of pathological drinking. Anxiety is precipitated by fear of something which is unavoidable, inescapable, or insoluble. There is nothing more potent in this respect than a perceived threat to one's oxygen supply. On the other hand anxiety and tension react upon the breathing apparatus in a fashion which intensifies existing defects. It has been demonstrated by Holmes, Goodell and Wolff(9) that psychic stress affects the nose so as to display the typical appearance of allergy. The effects of anxiety upon asthmatics are well known. Fear of the loss of air is typical of anxiety and this fear in turn increases tension and makes breathing more difficult. Eventually the victim faces the dilemma of something completely unavoidable and at the same time unendurable.

In such a situation Holmes and Ripley (10) have indicated that responses are aimed at removing the discomfort rather than at achieving normal, socially valued adjustment. Alcohol presents the ideal solution. Lowenbach and Suitt(11) reported lasting improvement in a number of anxiety cases immediately following the experimental administration of alcohol. Goldmann and Luisada(12) obtained very good results in controlling lung edema (a dangerous and frequently fatal condition) with high concentrations of alcohol in oxygen. They emphasized the sedative and anxiety-reducing qualities of the vapor. Alcohol has been used many times in the postoperative care of surgery cases, and injection into the blood stream improved the results of nasal surgery for Cottle, Fischer, and Loring(13). They described it as reducing anxiety and irritability and producing euphoria, sedation, hypnosis, and analgesia in controlled dosages.

A possible explanation of why anxiety-reduction technique is applied to a gradually widening range of situations appears in the study by Ausubel, Schiff and Goldman(14). They found that people with a consistently high anxiety level placed unusual dependence upon familiar and stereotyped responses and thus failed to adapt to novel situations. In a condition of chronic discomfort and anxiety which must be reduced regardless of social consequences, it is not difficult to conceive of this stereotypic tendency introducing a pattern of learning and reinforcement with reference to whatever agent produces personal comfort.

Summary

Cases of alcoholic tuberculosis patients presented some instances of a history of physical complaints which gave rise to the hypothesis that respiratory defects and allergy are associated with alcoholism. The hypothesis was investigated in a random sample of discharged cases from Firland Sanatorium in Seattle, numbering 100 and evenly divided by sex and with reference to alcoholic diagnosis.

Alcoholics were significantly distinguished by one or more of a selected list of respiratory complaints, by a multiplicity of them, by the more individually frequent of them, and by gastrointestinal and skin allergies. Respiratory complaints and allergies were associated among alcoholics and nonalcoholics alike, particularly sinusitis.

Assuming these findings to be valid for at least some alcoholics, a theoretical explanation is suggested. Respiratory difficulty and anxiety are mutually and cumulatively interrelated in causative fashion. Both are relieved by the use of alcohol. Acquiring this sort of relief from a chronic condition gradually takes precedence over a widening range of activities.

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SCHOOL PHOBIA: A STUDY IN THE COMMUNICATION OF ANXIETY[1]

LEON EISENBERG, M. D.[2]

Psychiatric efforts to understand the meaning and genesis of neurotic behavior begin with the painstaking task of reconstructing a reliable version of the patient's previous life history from the accounts he and his relatives provide. We soon learn—as Freud disconcertingly discovered—that the emotional involvement of the participants distorts the very process of anamnesis. This leads us to attend to the behavior of the patient and his relatives toward the psychiatrist. The sample of behavior in the office, termed transference or parataxis, is presumed to be representative of other interpersonal transactions, though it is clearly a very special kind of interpersonal relationship, not immediately equivalent to any other. Both of these sources, case history and interview, valuable though they are, fail to provide the direct data of observation that might verify or contradict the dynamic hypotheses we erect to account for the origin of disturbed behavior. We are in search of the specific patterns of verbal and non-verbal communication *within the family unit* that give rise to the patient's symptoms.

It may be of interest, therefore, to report direct observations of parent-child interaction that bear directly upon the source of a particular syndrome of neurotic behavior: school phobia. The mode of relationship was available for study at the very juncture when the symptoms were *in statu nascendi:* the moment of separation. The drama could be seen as it unfolded rather than having to be reconstructed from the incomplete and colored versions offered by the actors in terms of their experience of it and their attitudes toward the auditor. In this way recurrent psychotherapeutic encounters with parental ambivalence were thrown into bold relief by observation of the critical role it played in the interaction between parent and child. The communication patterns that could be significantly related to the onset and perseverence of this specific syndrome may be pertinent to an understanding of the origins of neurotic behavior in children.

THE CLINICAL PROBLEM

Children with school phobia are coming to psychiatric attention with increasing frequency. In a survey of the last 4,000 admissions to our clinic, the incidence was noted to have risen from 3 cases per 1,000 to 17 cases per 1,000 over the last 8 years. It is difficult to ascertain whether this reflects a real change in incidence or merely in recognition and referral from physicians and school authorities, the latter hypothesis representing the more likely explanation. Presumably, in former years such problems were handled by the truant officer or the children were made invalids at home by certificate of the family physician.

At the outset of this discussion, it is essential that school phobia be distinguished from the far more common problem of truancy. The truant, as a rule, has been an indifferent student. He cuts classes on the sly and spends his time *away from home,* frequently for antisocial purposes. He is likely to be a rebel against authority and usually stems from the lower socioeconomic strata of the community.

The phobic child, on the other hand, urgently communicates to his parents his inability to go to school and is usually unwilling to leave home at all during school hours. Most commonly, he is of average or better intellectual endowment and has done well academically prior to the onset of his neurotic symptoms. His difficulty may present itself frankly as fear of attending school or may be thinly disguised as abdominal pain, nausea and vomiting, syncope—or the fear of nausea or syncope in school. Frequently the child is unable to specify what he fears. At times, if pressed, he may offer a rationalization of his behavior in terms of a strict

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

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teacher or principal, unfriendly classmates or the danger of failing. The incidents that may be blamed for provoking the reaction do not differ in kind or intensity from those most children experience at some time during the course of schooling. Moreover, the correction of the apparent difficulty by change of classroom, reassurance of passing, etc. is conspicuously unsuccessful in resolving the problem. In general, the longer the period of absence from school before therapeutic intervention is attempted, the more difficult treatment becomes.

Systematic study of these children reveals that, almost without exception, the basic fear is not of attending school, but of leaving mother or, less commonly, father. Johnson and her collaborators(1, 2) have suggested, therefore, that these cases be classified as separation anxiety and that the term school phobia be discarded. We have no argument with the contention that this group of cases constitutes a clinical variant of separation anxiety(3). The older term, however, has not only the merits of historical priority and wide clinical usage, but as well the useful function of serving to emphasize clinical symptomatology that must be the first target of therapeutic efforts. That is, the key to successful treatment lies in insistence on an early return to school for older children or the introduction to a therapeutic nursery school for the younger; left at home, the patient is further isolated from his peers, multiplies his anxiety about returning, is trapped in the vortex of family pathology and is reinforced to persist in infantile maneuvering by the "success" of his efforts.

SOURCES OF THE CLINICAL DATA

The findings to be summarized are based upon 2 groups of patients, totaling 26 cases. The first group comprised 11 children, 6 boys and 5 girls, of pre-school age, who were treated for separation problems at the Children's Guild, a specialized nursery school for emotionally disturbed children. The second group, 7 boys and 3 girls in elementary and 3 boys and 2 girls in junior high or high school, were studied in outpatient therapy, mostly at the Children's Psychiatric Service. On each of the patients, a thorough initial psychiatric evaluation was performed; in most cases, supplementary information was obtained during the course of psychotherapy. In the children attending nursery, careful observations were made of the behavior of child and mother during the initial period when mother was invited to be present and particularly during the transitional period when separation was accomplished. As we became aware of the significance of the interaction patterns that were noted in the younger group, we were alerted to waiting room behavior before and after therapeutic interviews and inquired more closely about parental actions during efforts to get children to school.

While the specific problems in no two families were identical nor were precisely the same behavior patterns exhibited during the moments of separation, an intense ambivalent relationship between parent and child was present in every case, with separation as difficult for the parent as for the child. In 24 of the cases, the nuclear problem for the child lay in his relationship to his mother, in 2 to his father. There would seem to be little purpose in statistical enumeration; rather, illustrative case synopses and representative anecdotes of separation behavior will be presented as exemplary of the dynamic factors evident in each case, but in varying intensity.

PARENT-CHILD INTERACTION DURING SEPARATION

During his first days at the Guild, the typical child remained in close physical proximity to his mother. Attracted to group activities despite himself, he could be seen oscillating toward and away from the play area. As he began to look less and less in his mother's direction and to enter tentatively into the nursery program, his mother was noted to move from her now peripheral position in order to occupy a seat closer to her child. The umbilical cord evidently pulled at both ends! Periodically the mother intruded herself into the child's awareness on the pretext of wiping his nose, checking his toilet needs, etc., each such venture being followed by his temporary withdrawal from the group—much to her dismay.

As trial separations were begun by having the mother move into an adjacent room after telling her child, several mothers jeopardized a previously successful transition by finding it "necessary" to return to the play area. When the director suggested actual departure, the mothers responded with an admixture of indecisiveness, apprehension and resentment. One anguished mother, literally led out by the hand, commented, "The least I can do is keep my feet moving." Another bid her twins goodbye with many reassurances of her early return. They played on unconcerned. She stopped again at the door to assure them they had nothing to fear. They glanced up but played on. Having gotten her coat, she made a third curtain speech in a tremulous voice, "Don't be afraid. Mommy will be back. Please don't cry." This time one of the twins got the cue and cried till she left. Another mother, after two farewells without responsive anguish in her daughter, turned to the teacher bitterly, "How do you like that! She doesn't even seem to care!" A fourth mother, tearing herself away from a whining daughter, took her departure with this parting shot, *"Miss Sally* (the teacher) says I *have* to go." Once gone, the mothers spent an unhappy hour or two, returned almost invariably before the time agreed upon and greeted their children effusively with unsolicited reassurances and anxious questioning about how they had fared.

In dealing with the school aged children, similar, though usually more subtle, phenomena were evident. On the first clinic visit, the psychiatrist might be told in the child's presence "you won't be able to get him to leave me." At that very moment, mother would tighten her grip on the child's hand or about his shoulder. During the interview, she was constantly on the alert for the sound of his voice or footsteps. If he did enter to ascertain her whereabouts, she was conspicuously ineffectual in getting him to leave. When mother and child had to be seen together, she answered for him and constantly catered to his demands, although in an exasperated fashion. A Binet under these circumstances would likely result in a composite I.Q. for the two!

We, of course, were not able to observe the actual school going behavior but obtained accounts dynamically equivalent to what had been observed in the nursery setting. One father reported during the course of treatment that on the day his son had agreed to begin his return to school, his mother wondered aloud whether it might not be wiser to wait a day since it was raining and he might catch cold. When the youngster insisted he should keep to his agreement, the mother suggested she consult his father. Called at his office, the father responded with an exasperated "of course he should go!" Whereupon, the mother turned to the patient and stated, "Your father thinks it's raining too hard." Another mother reported that her son, who had finally been gotten back to school for a week, had been absent the 3 days prior to the clinic visit because he lacked rubbers and there had been a heavy snow. This seemed not unreasonable until we learned from the patient that he had been out sledding each of those 3 days!

In one of the two cases where the father played the cardinal role, the following description was offered by his wife. When the morning for return to school arrived, the patient responded with his customary complaints of nausea and abdominal pain. After a few incoherent attempts to insist that his son must go, his father broke into tears, shouted "My God, I can't do it" and tore off to the bathroom to vomit. When the mother called me at 7:30 a.m., in a state of considerable agitation herself, I could hear the lamentation of the men in the family in the background. In the second case, the father was so distressed by his son's morning behavior that he had to be excused from his legal duties, couldn't eat and spent an agitated day—all this at a time when the patient was contentedly watching television at home.

THE PARENTS

Without exception, the mothers were anxious, and ambivalent. Each gave a history of a poor relationship with her own mother; most were currently in the throes of a struggle to escape the overprotective domination of a mother or mother-in-law who visited daily, insisted on frequent phone

calls and was constantly critical. Pregnancy had usually been regarded as a mixed blessing; childbirth was feared. The infant had been surrounded by apprehensive oversolicitude and had never been trusted to babysitters, at least outside the immediate family. As the child ventured forth from his home, he was constantly warned of hazards. As one mother phrased it, "I thought it was better to frighten my Joey than to lose him."

The dynamic forces in the mother-child relationship were quite complex. Several of the mothers had responded with primary overprotection to a child who had been a late arrival after many sterile years. Others saw the child in terms of their own pathetically unhappy childhood and reexperienced with each of the child's tears remembered moments of loneliness and misunderstanding. But, inevitably, the children's strivings for independence and self-gratification led to feelings of personal rejection and reactive hostility. "After all I've given her! How can she treat me like this?" was a typical expression.

Lacking emotional fulfillment in their marital relationships, many of these mothers turned to their children. On the one hand, the marriage yielding little, the child had to be both child and lover. On the other, he was resented as the hostage by whose presence the mother felt trapped. This anger, prominent in most cases, led to reactive guilt and secondary overprotection. These mothers could not let themselves experience the resentment normally aroused by difficult behavior and consequently had difficulty in setting limits. As the child, accustomed to having every whim gratified, finally drove her to exasperation, her explosion, disproportionate to the precipitating incident, would lead via guilt to another cycle of overindulgence and latent resentment.

Dependent and anxious as these mothers were, they found little support from their husbands. We found no instances of overt infidelity, but many of the fathers were more strongly wedded to occupational interests than to their wives. They tended to be more effective with the children when they troubled to take an interest, but usually confined themselves to disgruntled criticisms of their wives' inadequacies. Of the two fathers mentioned earlier, one had suffered from an unusually sadistic relationship with his own father and was attempting to provide and, at the same time, experience vicariously through his son, the kind of fathering he had missed and still searched for. His efforts to spare his son any unhappiness had been accelerated by a mild attack of poliomyelitis in the boy. The other father, as far as could be determined from a brief contact, had been tremendously affected by the sudden death of his own brother at 17, for which he felt responsible.

PARENTAL ATTITUDES TOWARD THERAPY

The ambivalent attitudes so evident between parent and child overflowed into relationships with the psychiatrist, the case worker and the teachers. One unusually blatant example may serve to dramatize the ever present rivalry between these mothers and those to whom they appealed for help to wean their children away from them.

Mrs. L., "devoted" to her own hypochondriacal mother whom she feared to leave lest "something happen to her," married late in life a pleasant but ineffectual husband whom she completely dominated. Successful as a career woman, she commented, "I never thought I wanted marriage or children. Now I can't even think of leaving them." She reported her daughter's lack of interest in the nursery with evident satisfaction and did her best to insure that the school would have little special to offer by duplicating games and equipment at home. She told the nursery director one day, "You know my daughter really doesn't like you very much. In fact, the only nice thing she says is that you have a nice complexion." At this point, she leaned over, scrutinized the director's face, and added, "And I don't see what's so nice about *that*!"

Whereas advice was sought with an imploring and almost desperate air, it was usually received with, "and what do I do when that doesn't work?" There can be little doubt that this anticipation of failure effectively undercut whatever measures might have been taken. That the overdependence of the child had positive values for the mother was often pointed up by the disappointment and even resentment shown to the therapist when the child made strides out on his own.

THE CHILDREN

Without exception, these children were of normal or superior intelligence. Those with prior school attendance had not been singled out by school authorities as deviant in any way. Their parents described them as having been sensitive to change, even as infants, and as fearful of new situations. Yet, pathetic and frightened as they might appear on arrival when separation was first attempted, they became remarkably free from anxiety once the therapist had won their confidence, usually in the first interview. In the younger children, intrinsic psychiatric disturbance was far less prominent than neurosis in their parents. The one significant exception was a child who conformed to Mahler's description of a symbiotic psychosis(4). In the adolescents, intrafamilial pathology had been translated into intrapsychic.

An element of infantile manipulation, at times more prominent than anxiety, was evident in the child's behavior. Richard, at 3½, had so successfully trained his mother that the merest cloud of dissatisfaction lowering over his face would send her into frantic activity to offset an impending tantrum. Eddie, at 10, needed only to whine and his father would purchase gifts beyond his means. Lisa, 6, was clearly involved in a vendetta of punishment for her mother's sin of leaving her for a vacation. Wendy, 3, had learned to arouse guilt and anxiety in her mother, who had been hospitalized twice, once post-partum, with the deliberate comment "you liked to go to the hospital" whenever mother attempted to leave. Arlene, 8, went to school without a murmur when staying at her grandmother's house but couldn't be budged from her mother's.

There would seem to be a line of demarcation, however, at about the junior high school level. The 5 adolescents were, as a group, far more disturbed. In this we agree with Suttenfield(5). Kathy, 15, tied to a chronically anxious mother, developed a fear of fainting at school or in crowds and retreated to a symbiotic relationship essential to both; interestingly, her mother had quit high school herself for the very same reason. Fear so strong as to overcome the need for conformity and the striving for independence in the adolescent implies a greater degree of illness than it does in the younger child who is normally more dependent. One might suppose that the chronic action of the forces we have identified in the families of the younger children had ultimately warped personality growth beyond the hope of ready change.

THE PATTERN OF SYMPTOM FORMATION

The configuration of psychic forces that generates separation anxiety has the following attributes. There is a background of overdependence on the mother (or father) almost consciously fostered by the parent in response to her needs rather than the child's. At the same time, the child's parasitic clinging is resented by the mother as it impinges on her own freedom of movement. Superimposed is hostility toward the child stemming from sources not in immediate awareness: the child as an image of a resented husband, as bond to an unwanted marriage, as symbol of a hated sibling, etc. Secondary to this is guilt and compensatory overprotection. The child responds as well to the rejection he can sense as to the indulgence in which he luxuriates.

This supersaturated atmosphere is precipitated out by some transitory situation which arouses anxiety: illness, change of school, harsh word from a teacher, etc. At a time when the support of firm handling is needed, the child's anxiety is multiplied by the sight of a distraught and decompensated parent. Maternal apprehension makes quavering the voice and tremulous the gestures that accompany empty verbal assurance. It is as if the children are told by nonverbal communication that what lies ahead is even more frightening than they had dared think—a kind of *folie à deux*.

The child's symptoms are comprehensible as the response to contradictory verbal and behavioral clues. He is told that he must go at the same time that he is shown he dare not; he is told that he is loved at the same time that his needs are lost in the morass of his mother's. The mother is unwittingly sabotaging her own ostensible goals as she struggles in the relentless grip of ambivalent feelings. The child, in response to felt hostility, strikes back by displaying the behavior that he senses will be most disconcerting to

her. Anxiety is aroused when the latent (behavioral) cue to the child is rejection or fear; manipulation is activated when the latent cue is the possibility of gratification. The contradiction between words and behavior in the transactions between mother and child is the catalytic agent in generating separation anxiety. The history of early sensitivity to change in these children as infants suggests that an intrinsic anxiety proneness may exist which renders them more susceptible to the acquisition of these patterns. Certainly, they are not exhibited by all children who may grow up in dynamically similar family situations.

TREATMENT

The therapeutic corollary to this conception of the genesis of symptom formation is an insistance on early return to school. At the initial psychiatric consultation—made if necessary on an emergency basis for the school-aged child—an attempt is made to identify the etiologic factors and to assess the degree of sickness in family members. The parents are given the reassurance that the prognosis is relatively good and the main dynamic features they are deemed capable of assimilating are pointed out. A program for rapid return to school is outlined. Often this can be negotiated with the child once it is made clear to him that school attendance is prescribed by law and that the issue is not whether he will return but how and when. If necessary, he may be permitted to begin by spending his day in the principal's or counsellor's office or by having his mother attend class with him, but he must in any event be in the school building(6). We have, on occasion, when a thorough trial of other methods has failed, gone so far as to schedule a hearing in juvenile court—which did not have to take place—in order to shore up ineffectual parents. One father, indeed, decided on his own to call in police officers to convince his son (and himself) that he meant business. Once return has been achieved, therapy continues with the family in order to eradicate underlying pathological attitudes. Obviously, these strictures do not apply to the pre-school child for whom a nursery program can be introduced gradually on an elective basis.

Our results confirm the practicability of this plan. Not one child has been precipitated into panic or has gone into psychic decompensation as some might have expected. Ten of the 11 pre-school children and 10 of the 10 elementary school children have returned to and are still in school. Results have been far less impressive in the junior high and high school groups. Only 1 or possibly 2 are now attending school regularly; the remaining 2 have been in and out and as of this moment have a questionable outlook; 1 is definitely a therapeutic failure.

These results contrast with a situation uncovered in a recent survey of children in Baltimore on home teaching for medical reasons(7). Of 108 children taught by visiting teachers, 8 elementary school pupils were discovered to be on medical certificates for school phobia. Consequently, no effort had been made to insist on attendance. All had been out for it least 1 year and one as long as 3 years. This points to the unwisdom of recommending home teaching which makes the situation far too comfortable for the whole family and removes a major motivation for change. By accepting the apparent inability of the child to attend as a real inability, it reinforces his regression. The insistence on attendance, on the other hand, conveys to the child our confident expectation that he can accept and carry through a responsibility appropriate to his age.

The objection may be raised that we have produced a symptomatic cure but have not touched the basic issues. It is essential that the paralyzing force of the school phobia on the child's whole life be recognized. The symptom itself serves to isolate him from normal experience and makes further psychological growth almost impossible. If we do no more than check this central symptom, we have nonetheless done a great deal. Furthermore, we have been impressed with the liberating role of this accomplishment in opening avenues for rapid progress in both child and parents in subsequent treatment. The psychiatric task is, of course, not complete when return is accomplished, though it is sometimes so regarded by the parents. Every effort should be made to follow through with family oriented treatment.

SUMMARY

School phobia has been shown to be a variant of separation anxiety. Direct observa-

tions of transactions between parents and children at the time of separation have been presented. Key dynamic factors have been identified and the mode of symptom formation has been outlined as a paradigm for the genesis of neurotic behavior. The outcome of a treatment program has been reported in validation of the theoretical conception of the nature and genesis of the disorder.

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DISCUSSION

GEORGE PERKINS, M. D. (Chicago, Ill.)—This paper presents an approach to school phobia in which observations are made of the parent-child relationship (particularly the anxieties and ambivalences) at the time the parent takes the reluctant, phobic child to school.

In my remarks, I wish to dwell on therapy and research which is based on a technique of *observations of parent-child relationship*. For interesting as this paper's observations are on school phobias, this particular technique, I believe to be also most interesting and important.

You will remember that the work on school phobias first referred to in this paper is the pioneering research by Szurek, Adelaide Johnson, and Falstein using the collaborative approach. The therapist of the mother and therapist of the child got together frequently to compare notes and to further the help of each. Szurek and Johnson were amazed at how the mother's moods and material were invariably reflected in the child's behavior and concerns. The two obviously were connected in certain causal ways—especially regarding the mother's influence on the child—and each made more sense in terms of the other's material. Thus, a research method was devised, which even today is not sufficiently exploited for purposes of understanding the child's behavior. We have a way of finding out in detail about the past and present attitudes of the mother, as reflected in her sessions. These are crucial in their bearing on the child's reactions. Szurek, in his obesity study in the hospital and later, Adelaide Johnson, in her study of the perversions and schizophrenia, have again made remarkable use of this approach.

But as the author brings out at the beginning of this paper, a *report on behavior* in sessions which assess the emotional states of two parties of a relationship is valuable and valid but still does not always yield the same data or impact that *direct observation of* these people, in crucial situations, might yield.

This last method used by Dr. Eisenberg is today used very actively in child psychiatry in several crucial ways. The atypical child was studied by Putnum in a setting permitting maximal observation of mother-child interplay. In children's institutions, consultants, doctors and others regularly observe and learn from observing the sick child's direct interplay with adults, especially with the child care personnel. All sorts of crucial child-child relationships are also observed in children's treatment centers. Such observations have become an object of especial interest and emphasis.

There are degrees of knowing—what is guessed, what is supposed, what is inferred, what is known for certain. But nothing is more convincing than what we have actually observed, or believe we have directly observed with our own eyes and ears. In our difficult field, the conviction we have about our knowledge and, therefore, the use we make of our knowledge makes a great deal of difference—whether we just guess this to be a fact, suppose it to be so, or feel we know for certain it is so. What is also to the point, what we have just seen *going on*, may lend itself much more to therapeutic discussion and effort with the patient than, say, something the patient has done a year ago and has not had on his mind since. One of the reasons for the great emphasis of Redl and others on the life-space interview is that the very sick, acting-out child may be ready to forget for a long time what has happened and what he has done, unless a person, skilled in discussion and the timing, is available for such talks shortly after the child has acted in a certain way. Thus, the most important marginal therapy and handling of certain aspects of an institutional child's productions and acts would never become accessible to change if it were not for our appreciation of the value of direct observations and the use of such observations immediately after, in a therapeutic relationship.

Special commendation is due Dr. Eisenberg for the further contribution to our knowledge of school phobia as achieved by this method in his work and therapy. Students in our field can be taught volumes about most basic situations by actually seeing or observing these crucial situations involving parent-child interplay. Also, I know of no better teaching for a young psychiatrist than a therapy case of a school phobia, especially in collaboration with another therapist treating the mother. Of course, good supervision is also necessary for the young psychiatrist because (in addition to the problems of dynamics with which he needs help) the tremendous ambivalences in the parents-child relationship (in the severe cases of school phobia) must not only be observed to be understood, but also seen in their proper perspective to be dealt with therapeutically.

AN ANALYSIS OF THERAPEUTIC ARTFULNESS[1]

WALTER BROMBERG, M.D.[2]

Therapy is the chief justification of the science of psychiatry. Artfulness is one of the main ingredients in the practice of psychotherapy. This paper proposes to clarify some psychologically significant aspects of artfulness in psychotherapy.

Art is a complex human activity involving an even more complex group of physical skills, attitudes, and modes of symbolic expression. *Artfulness,* on the contrary, has two distinct meanings: one indicating a performance utilizing more than ordinary skill, or more accurately, the application of a technique with attainment of results that exceed those expected from the application itself. The second denotes a skillful or cunning manner of gaining an end. In general, artful endeavor encompasses more than skill of performance: it includes the human functions called talent, aesthetic preference, experience, and knowledge. There is a further difference between art and artfulness in that the latter relates to persons on whom artfulness is wrought, whereas art relates more particularly to inanimate objects worked upon. So the overtones of artfulness, in its second meaning, of involving a wily, indirect, or ingenuous manner of utilizing skill, invade the first meaning.

The distinction can be clearly shown by stating that the artist, the craftsman, and musician display artistry: the physician, the salesman, the lover, and the lawyer pleading at the bar, display artfulness. The application of a technique, as in painting, woodworking, or music, represents art; whereas, artfulness in the application of a technique involves a human relation, as in the practice of medicine, merchandising, love, or law. The first meaning of artfulness is the one with which this paper will deal, since it relates to the technique and method of medical psychotherapy. Nevertheless, the human nature of psychotherapy introduces the possibility of influence of that secondary meaning stated above.

Psychotherapy: Art or Science?—The stimulus for this inquiry arose from the wish to analyze those factors in psychotherapy which make it successful, when it is so. It is undeniable that all techniques employed in modern psychotherapy by any school or group, meet with successes as well as failures. An explanation given by any one protagonist cannot explain, in his own terms the process of psychotherapy in the hands of others. We search then for a common factor in effective modifications of symptoms. The study of artfulness may provide a clue to this factor.

Without laboring the point of definition, we can agree that psychotherapy utilizes psychologic means for the disappearance or amelioration of mental or physical symptoms in patients, not attributable solely to chemical or mechanical energies or reactions. Included, therefore, are innumerable methods, some naïve, some sophisticated, some psychologically informed and some religiously or philosophically derived. In "scientific" and unscientific psychotherapy alike, one finds a mixed picture of accomplishment and failure, conceptual order and chaos, prediction and dependence on chance, rational theories and intuitive guesses.

Even among trained psychotherapists, the results of prolonged psychotherapy by various workers using differing therapeutic approaches in analytic and non-analytic fields, were found to be strikingly similar. Appel (1) and his associates (1951) who summarized comparative reports of success and failure of various procedures, offered the possibilities that either 1. psychotherapy has no effect on the patient, or 2. the non-specific and common elements of the different types of treatment outweigh the individual differences. On the basis of the second hypothesis the authors detail the common denominators in psychotherapy, considering factors inherent both in the patient and therapist which make for success. The essential point, Appel suggests, is the affective relationship between

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

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patient and therapist. This relationship is recognizable as essentially emotional in nature, being compounded of conscious, and unconscious (transference and countertransference) elements.

The meaning of this relationship is the subject of our inquiry. However, we shall accept the emotional aspects of this relation without argument and directly consider the operational complex of the therapist—the attitudes, convictions, and beliefs within the therapist. These are conveyed and imbedded in the *application* of technical methods and hence can be subsumed under the "art" of psychotherapy.

It will be generally agreed that modern "dynamic" therapy, both individual and group, claims kinship to the scientific method. It also admits, perhaps less proudly, its relationship to the "art" of medicine. However, the relative place of science and art in psychotherapy has not been precisely defined in psychiatric literature. For one thing, the practical urgencies of the therapist's task restrain him from too close an analysis of forces involved in application of his techniques. Nevertheless, every therapist, no matter of which diverse school or movement, is aware of the methodological defects of psychotherapy as science. Inasmuch as scientific method relies on quantification, psychotherapy must necessarily be distant from science. If predictability is to be an unfailing result of application of scientific laws, psychotherapy is not truly scientific. If sound postulates on which to erect hypotheses are requisite, (*e.g.,* that a given psychologic trauma acts as a "cause" for development of mental symptoms and that removal or nullification of the trauma would remove the symptom), psychiatry and psychotherapy are clearly assailable as scientific disciplines.

Recognition of these difficulties in placing psychotherapy within the limits of the scientific universe of discourse is customarily met with the admission that therapy is more art than science. It is true that intuition and empathic sensitivity within the therapist are acknowledged. But further penetration is needed into the feelings and attitudes involved in the "art" of therapy which come to occupy a vital position in the therapeutic relationship.

The most striking point in exploring the application of elements which we call art, is the universal recognition that art involves symbolic forms. Philosophers distinguish between *discursive* and *symbolic* forms of thought, the former being inductive reasoning as employed in scientific explanations, and the latter recognized as emotive, nonarticulated expressions of feelings. In this sense art appeals to human perceptions with greater immediacy than do the presentations of discursive thought.

This modality of human expression, *i.e.,* symbolic forms (or color) in art, clearly carries an implication of conceptual primitiveness. This primitive quality is accompanied by its presumptive force in influencing human behavior. This universal implication carries a further derivative implication, namely, that artful addition of symbolism in the application of scientific hypotheses, will increase the therapeutic effect. Were it not for this unspoken, partly 'magical' hope or wish, there would be only the minutest fraction of therapeutic activity evident, compared with what has been witnessed among professional and lay workers in all medical fields for centuries. The final implication of the original premise is that artfulness in healing, whether developed upon empirically based techniques or methods, or blandly superimposed on capricious techniques or methods, will succeed where application of unadorned scientific hypotheses fail. Herein lies the basic predicate underlying the value of the "art of medicine."

Psychological Basis of Artfulness.—The attitude, that symbolism in human relations carries greater strength than applications of reason based on scientific principles, is imbedded in the tradition of medicine, as in law, pedagogy, and other areas involving personal relationships. In medicine it is seen in the *lege artis* (rules of the art); those diverse aides to the traditional doctor-patient relationship, the physician's style in handling patients, his "bed-side" manner, the air with which he utilizes his instruments and equipment, his framed diplomas and licenses, the semihushed waiting room atmosphere—in a word all the embodiments of his "role" as healer. These stylized conventions, absorbed in the physicians' training, are intimately tied to the authority of medical knowledge. The psychologic importance of such

traditional artifices is that they presume to increase effectiveness of therapeutic measures. This implication is an unspoken accompaniment of the doctor's presence with a patient.

From which level of psychic activity do these implications proceed and what are the psychologic forces that uphold them?

We may indicate the symbolic factors in a therapeutic relation as follows: 1. The influence of magical thinking, a vestigial psychological element to which no human being is immune, is immediately encountered. 2. Secondly, artfulness is implied in the premises of a healing technique; namely, that a treatment method, *e.g.* hypnosis, requires artful application. 3. Third, is the action of unconscious omnipotence fantasies or neurotic defenses against fear of failure on the part of the therapist. 4. A fourth entails the therapist's pride or personal satisfaction which is related to the narcissistic gratification of the healer. 5. A fifth factor is the exclusiveness, as seen in the members of a guild or craft, which is related to self-esteem arising from social group identifications. 6. A final psychological consideration is the persistence within all individuals of pre-verbal symbolic patterns which replace, to some degree, articulate communication.

These levels of psychic activity, each with its corresponding psychological substratum, form the elements of artfulness. They are all active to some degree. The entities just enumerated can be listed in order of their degree of intensity as they emerge in artfulness. 1. Magical thinking is a small factor among trained psychotherapists because these workers are aware of magical elements which are under constant pressure of suppression. The concept of maturity itself is based on the accomplishment of such control on the part of the intact ego. 2. The implication of artfulness in the premises of a technique is a frequent factor because some treatment methods, *e.g.,* electric or insulin shock, involve chiefly mechanical or chemical equipment. 3. Defenses against unconscious fears within the therapist may be a partial factor, especially in the expression of an omnipotence fantasy (to which the enlightened psychotherapist is alerted through self-analysis and self-perception). 4 and 5. Pride in a professional group through absorption of self-esteem is an undeniable factor in all medical and psychologic therapy. 6. The tendency toward pre-verbal symbolic expressions and its facilitation of communication is a factor in therapeutic work as it is in all human activities(2).

Added to these psychological influences which uphold the implications described as underlying artfulness in therapy, is one overwhelmingly significant factor—the participation of a deep-rooted service motive. The surface expression of the impulse to help others is readily recognized as "social idealism" in individual or community situations: its psychologic component is the pervasive striving or "conative" drive. The function of striving or conation in the therapist calls up all the partial psychological forces just enumerated. "Service" is an ethical concept, "object interest" is a psychological element, and "conation,' if it can be further refined in description, a striving inherent in the human ego.

The place of conation in the therapeutic transaction has not been explicitly recognized. One of its elements, the service motive which reflects both a psychological and reality value, has been somewhat whimsically alluded to by Masserman(3) as one of the "delusions" or "Ur-defenses" of mankind. The delusion of "man's kindness to man," is related by Masserman as one of the basic postulates, or psychologic defenses, by which we live, "man's Ur-defenses." Yet this concept of human interactionism, the "delusion" of striving to help each other, is what keeps humanity from flying apart through centrifugal force. The conative impulse behind it is here presented as a vital aspect of the therapeutic process.

Conation and Scientific Judgment.—The contention here presented states that conative drives are active in every therapist, forming a vital part of his underlying operational attitudes. Parenthetically, it may be further stated, that these drives are held in common by all socially sensitive persons. Such a drive is implicitly accepted by physicians in the larger perception of their calling. Traditional attitudes within the healing craft, including universal symbolic forms mediating the service attitude and conative drives, are intimately related to artfulness. It would not be correct to identify this complex as counter-

transference because it does not depend solely upon infantile elements but upon the total adult personality configuration of the therapist and his participation in a social conserve.

It might be considered obvious that a healer is imbued with a wish to heal and that this emphasis on conation could be easily dismissed as trivial. But were this done, a significant relation would be overlooked—the specific relation between scientific hypotheses and artfulness, *e.g.,* as in dynamic psychotherapy. In turning to this relation, it must be pointed out initially that the application of a technique of psychotherapy is always based on an implicit or explicit, completely or incompletely formulated theoretical foundation. The assumption inherent in all psychotherapy can be simply stated—that the technique, developed from the theory if correctly applied, will bring the expected result. Thus hypnosis, correctly applied, will cure hysterical conditions; persuasive or suggestive therapy, adequately applied and carried through, will result in benefit to psychosomatic patients; electro-convulsive therapy, when applied in a technically approved manner to depressions, will result in marked improvement in those patients; similarly psychodynamic therapy and psychoanalysis in neurotic conditions, transference neurosis, and the like. In this accounting no explicit place has been made for the effect of the complex described above, *i.e.,* the extra-technical elements within the therapist.

Why is this *operational* complex within the psyche of the therapist not regularly given greater credence in analyzing the therapeutic process? To understand this hiatus requires an analysis of the mental work involved in arriving at an efficacy-judgment of a given hypothesis and its implied technology. At the time a therapeutic procedure based on newly enunciated scientific principles is initiated, its efficacy is expected to derive solely from the scientific principles invoked. As time proceeds, a retrospective scrutiny indicates that elements other than those based on the original hypothesis in this given therapeutic maneuver, may have been equally responsible for therapeutic success. These can be accounted for by modifying the hypothesis and technology, or can be neglected as the result of chance or artful elements, usually the latter. The investigator, in a critical evaluation of success in his early efforts, only slowly becomes aware of the concomitant presence within him of artful elements of therapy. He would prefer to regard the result in terms of correct, or (if need be) amended theory. The psychological scientist, like all scientists, has a preference for "scientific explanations" and theoretical exactitude. Nevertheless, we cannot escape recognizing, within the worker, a psychological defensiveness regarding the "science" of a scientific procedure. It is this *usually* praiseworthy attitude that does not allow appreciation of underlying conative drives and attitudes.

If it were possible to view a current scientific procedure with critical hindsight, we might thus see more clearly the operation of the defensive sense of sureness within the investigator or therapist. At the time any new scientific procedure is applied in medicine, the feeling of surety is contained within and obscured by the investigator's artfulness. The defense weakens when one looks back a year, a decade or a generation later at the "science" of the moment of which we are speaking. This is so universal a succession of events as to be almost axiomatic: the science of today becomes the mythology of tomorrow.

A reading of medical history demonstrates that all "scientifically" based therapeutic procedures become less successful as they are tested in the crucible of time, while they simultaneously appear to be *theoretically* less valid. The disparity between the original and the later impression of validity does not only depend on the lack of actual empirical scientific verification. It also depends upon the fact that the original veracity of the scientific theory invoked was misjudged by virtue of these unseen or unconscious attitudes already discussed. The complex of conative impulses, etc. which has been identified with artfulness is clearly a factor in this misjudgment. The sense of sureness with which the operational complex is associated is resident wthin the mind of the investigator and hence not a function of the scientific hypothesis itself. Part of this sense of surety arises from the investigator's participation in the authority of accumulated medical science and part arises from the therapist's denial of operational conative elements within himself, which are projected to the scientific founda-

tion of his original hypothesis. This latter defense takes the form of concentrating on "science" and on the theoretical constructions involved.

One source of difficulty arises from the customary attitude of physicians toward a scientific hypothesis. A psychologic theory, *e.g.*, causation of a symptom, is merely a postulate system, acting as a "hypothetico-deductive" system(4), until observations confirm or deny its validity. Psychologic laws or accredited hypotheses have no fixed life of their own, so to speak, depending on everlasting verification. But scientific laws do have an emotive value for those who predicate them in a given technique: they provide a feeling of assurance. As Feigl(4) further states: "All fruitful hypotheses are not merely summaries of phenomena observed, but also inductive anticipations of other phenomena yet to be discovered."

We are faced then with a conflict between logical validity of a hypothesis that initially seems to work in practice and the emotive value, in this case the sense of assurance conferred by it. The crux of the problem is that empirical observations which clothe an hypothetico-deductive system are often taken as denoting logical validity when in fact they do not yet provide final verification in the formal sense of logic. In estimating feelings of psychological sureness evoked, we must distinguish carefully between amassing verifying observations and assigning logical validity since we are apt to invest the same emotional value in corroborative material as we do in logical deductions. Especially is this so in the early life of a therapeutic method wherein scientific hypotheses play a large directing role.

Nowhere can this delicate balance of verification in hypotheses and the sense of surety be more clearly observed than in present-day dynamic psychotherapy. To repeat in a highly diagrammatic way the current psychoanalytic hypothesis, moden dynamic psychotherapeutic principles state that a symptom represents a distorted or direct expression of defense by the ego against unconscious impulses and wishes. The chief therapeutic task pursued in dynamic psychotherapy entails an investigation through the maze of denials, rationalizations, and defenses of the conscious personality, for the repressed instinctual impulses which are represented in the unconscious of the patient and emerge, in derivative form, in symptoms. The goal of dynamic therapy is the exposure, through the transference, of these unconscious elements to "that portion of the ego which was amenable to reason or to logic."

The transference is of itself an essentially emotional situation for the patient and for the therapist. The technology and technique of psychoanalysis take into account both the emotional and cognitive aspects of the process. Our interest is in tracing the relation between the operational complex in the therapist and the cognitive aspect of the therapist's work, assuming that counter-transference elements have been successfully understood.

Artfulness and Comprehension.—Let us pursue the crucial process of comprehension within the therapist's psyche, as entailed in both the operational complex and cognition. Reik, one of the few analysts who have paid close heed to this process, has discussed the way in which the therapist apprehends relations between unconscious derivatives and symptomatic appearances within his patient. It is generally understood, Reik points out, that the analyst utilizes historical facts which are given and derived from associations, dreams, etc., to which he adds this intuition and his own perception of unconscious processes in developing a conviction about the course of events. Reik(5) quotes Freud's statement in this connection:

> Nothing remains (for the analyst) but to maintain his conviction, based upon his experience, with all his might, after listening to the voice of his own self-criticism very carefully and to that of his opponents with fair attention.

This process of comprehension represents the acceptance of interpretations by the therapist prior to his relating them to the patient for the latter's acceptance. This is made up of part acceptances on a trial and success basis, of testing hypotheses in view of the actual historical factors, of sending up trial balloons to estimate reactions. In Reik's words, it comes to be a process evolved from familiarity with a given case, of "groping presentiment . . . (which travels) . . . almost to that of a clear, scientific, definite cognition of the hidden impulses of the soul."

Bringing the unconscious conflict into the "range of reason," is the underlying activity

within the analyst which makes for his conviction. Herein one may see the influence of the operational complex of all the drives entailed in artfulness as described above. This conviction of a causal chain of events, once it has become a "scientific, definite cognition," is presented to the patient for his perception with added demonstrations in the 'working-through' process. Demonstrated 'proofs' to the patient and analyst plus the implications of the significant relationship between unconscious drives and conscious symptoms, amounts to a belief. Inextricably mixed with this belief is the sense of sureness described. There are, of course, incorrect interpretations, but once a set of conclusions is established, the conative drive for success advances them to a level within the therapist (and in the patient?) where therapeutic action is more likely to occur. The therapeutic function of the series of beliefs set in action by the therapist's comprehension and conviction is aided by the force of the conative complex communicated to the patient in the technique and art of therapy.

Interpretation and Belief.—The causal relationship between unconscious conflicts and defense formations (symptoms) developed through the patient's history is presented through interpretations to the patient piecemeal, and repeatedly in manifold ways. The sequence of events, i.e. the formulation of cause in terms of the patient's emotional history, and its effect in relieving the symptom, is by no means automatic. For the meaning of the patient's conscious and unconscious historical experiences has to be uncovered, presented for acceptance through interpretations, and believed. In this process of believing, we feel that both the transference influence within the patient and the conative complex within the therapist are involved. For an individual the truth value of an interpretation is relative to *his* view of his life and experience. The patient can never "know" what was unconscious to him except by inference—no matter how good the grounds for such inference may be. The interpretations are accepted by the patient as a kind of metaphor concerning what has apparently (to the therapist's comprehension) gone on within the former. It is, therefore, necessary to advance an analogous process in the patient to that of the operational complex in the therapist, and this appears to be the assumption towards the therapist's interpretations of an "as if" postulate. We must conclude that the truth-value of the historical (emotional) factors uncovered in therapy are assigned belief within the patient primarily as an "as if" postulate.

A word must be said regarding the question of truth value of interpretations. The focal point of this paper was an analysis of those factors in the relationship between therapist and patient which are common for all psychotherapeutic methods. In this relationship we have already outlined the place of the operational complex which we identified with artfulness. Therefore, the logical problem of testing analytical interpretations for 'Truth,' or more accurately stated, for empirical verification, is not in question. This problem has been discussed in detail by Wisdom(6), who showed that the testing or verification of an analytical interpretation requires fulfillment by the specific *criterion* of Popper: namely, that a theory is testable if it could be "refutable in principle, which means that we must be able to specify what situation, if the theory were false, would show that it was false. Without this, . . . no amount of supporting evidence provides any real confirmation at all; it is easy to get endless support for even a false theory. But what is needed is the failure of refutation that ought to succeed."

In attaining truth values for an interpretation as it occurs in therapy, we must find a factor in the patient which parallels that factor of conviction within the therapist regarding causality of symptoms. This is another way of discussing the truth value of effective interpretations from the patient's point of view. To understand what happens in successful dynamic psychotherapy or any therapy where the operational complex of the therapist is active, we must consider the patient's perception of the truth value of interpretation in the manner as described above.

Perception, cognition, and assimilation within the patient's ego of unconscious material brought forth in interpretations can be most plausibly explained by the "as if" postulate. This allows assignment of truth value to that which is offered to the patient. The therapist's work builds on the historical re-

construction and reactions of the patient's life, while the patient's acceptance involves the implicit assumption of the "as if" postulate. Thus, we can visualize the therapeutic process in dynamic and all other psychotherapies as the joint effect of the therapist's activities (comprehension and conative drives) *and* acceptance by the patient of the result of these activities.

Summary

The common factor in all psychotherapeutic relations is admittedly the emotional relation between therapist and patient. In scrutinizing this factor, we encountered artfulness, the application of scientific technology which involves certain psychologic overtones of extra-technical nature operating within the therapist. The elements constituting artfulness involve, on one hand, the psychology of the therapist, and on the other, the psychology of the therapeutic process itself. The operational complex, identified with artfulness, resides in the *application* of a skill, *i.e.*, is extra-technical and applies to all healers whatever their original postulates, premises, or theories of psychotherapy. This complex involves essentially conative impulses and insinuates a sense of assurance to the therapist which invades his critical judgment toward the efficacy, the "science," of the theoretical foundation of his method.

Successful therapy is initially recognized as dependent on the technology stemming from the scientific hypotheses advanced. Judgment concerning the scientific hypothesis which underlies every method of psychotherapy lies under the shadow of the operational complex which has been identified with artfulness. Later the efficacy of a treatment method diminishes: that degree of success, not attributable to the specific scientific theory and its technology, is recognized as due to artfulness. The intrusion of the conative influence and other unconscious forces—magical thinking, omnipotence fantasies, narcissistic satisfaction, symbolic expression, etc., bears on a scientific judgment of the method in question, *e.g.*, the verification of interpretations in psychoanalytic treatment. To explain how therapy works at all in successful cases, one must accept the extra-technical elements involved. This is suggested as the most plausible way to explain successful therapy when conducted by workers who point to the most diverse scientific theories and formulations as a valid basis for their accomplishments.

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Discussion

Roy R. Grinker, M. D. (Chicago, Ill.).—In the field of psychiatry we are currently in an era in which problems of therapy seem to be the major focus of interest. Since 1939 we have witnessed a tremendous development of somatotherapies, including insulin and electric shock, and recently there has been a boom in pharmacotherapy, at least bringing prosperity to the drug houses. In the latter period of this era, yet to reach its height, there has developed a renewed interest in the problems of psychotherapy, not necessarily as a result of the excitement over the somatotherapies but probably as an associated process. So great a recent interest has been invested in the subject of psychotherapy that it has been, with some degree of presumptuousness, termed a separate scientific discipline. Large foundations are giving huge sums of money for the investigation of principles of psychotherapy to individuals who are now frantically writing around the country for suggestions as to investigative procedures.

For a long time we have known that, although psychotherapists may disagree about theory, they often utilize identical operations in their treatment. We also know that a wide variety of techniques achieve equally beneficial results. But the combination of theoretical bias and specific operational techniques do not encompass all the possible variables, significant for effectiveness in the total field of therapeutic transactions. We know that within this field there are the variables of patient, therapist, the sum total of verbal and non-verbal transactions occurring between them, the life situation, the goal of the therapy, and the inner and outer changes in the mental life and behavior of the patient.

So complicated is this field with its many unknowns, that once I stated that questions arising about psychotherapy could be formulated as follows: What kind of patient suffering from what kind of disturbance can be benefited to what degree by what kind of therapist using what kind of techniques? Surely these questions, which are not totally inclusive, are enough to make investigators wary of the complexities involved in a scientific understanding of psychotherapy and to consider the aspects of intuition and artfulness as concerned in therapy.

Teachers could dismiss these complexities by advising the student to use the therapy that comes natural, have faith in it, and enjoy it! Students in training realize this and are not content with theoretical pronouncements or general operational directions. They ask specific and often embarrassing questions as to what do you say or not say and how do you say it or how do you not say it. If we emphasize such factors as empathy, intuition, and artfulness by generalities and the finality of authority with, "Either you got it or you haven't," we are guilty of making a natural phenomenon into something magical.

Doctor Bromberg has indicated that, according to his definition, artfulness is the application of techniques involving more than ordinary skill in dealing with emotional relationships between the therapist and the patient. One immediately asks: has he set up artfulness as an antithesis to the scientific approach? Is the "more than ordinary" some un-understandable power held by few and not learnable? I think he correctly says that at the present time psychotherapy is not a scientific discipline, for it is not quantitative, predictive, nor does it give relief by removing "the cause." But, in spite of not being scientific, it often succeeds even though a specific hypothesis fails of verification. Bromberg then categorizes 6 levels of psychic activity contributing to artfulness and, by isolating each of them and subjecting them to scientific scrutiny, he has done what any good scientist would: he isolates each variable as a precursor to its scientific investigation, and most of his paper is oriented toward that end.

Dr. Bromberg is particularly concerned with the striving in the therapist, as he participates in the healing art, toward helping and curing his patient. This corresponds to what R. G. Brown stated in the early 1920's: that the essential factor in therapeutic results by any method was the therapeutic enthusiasm of the psychotherapist. It is interesting that in the field of psychiatry the younger therapists who are not yet thoroughly indoctrinated by specific theoretical concepts, and psychiatric social workers who are more or less open minded and less concerned with theory, get better results with more difficult patients than do the older experienced therapists.

It is as if the scientifically based therapies go the way of all flesh as various theories become abandoned, but the connotative, striving, and enthusiastic aspects of therapy arise fresh with each new generation. We have seen this in almost pure culture in the field of pharmacotherapy. One can point to the literature of older days and indicate that statements made about the effect of bromides, barbiturates, insulin, electric shock, are identical to what is said today about the tranquilizing drugs. In our own Institute we have shown clearly that the attitude of the psychiatrists definitely influences the therapeutic effects of even the most potent drugs.

I think Dr. Bromberg clearly states that the therapeutic belief firmly arrived at by the therapist becomes transmitted and accepted by the patient. The degree of sureness with which this belief is held facilitates the art of therapy. Some scientific psychoanalysts consider that each interpretation made to a patient is a hypothesis and that the patient and the therapist then "work through" the material to verify or disprove this hypothesis. But, unless the analyst is very alert, interpretations are often "worked through" and accepted according to the cues emanating from the therapist. It seems that human beings need value systems and illusions with which to live and endure the anxieties of life. The neurotic patient's values and illusions have failed him. He will accept the therapist's illusions, for they are presented with vigor and they seem to work, at least publicly. The acceptance of these illusions within the magical setting of the therapeutic situation is profoundly influential in helping the patient at least temporarily.

These magical elements are common to all therapies. Their effects are universal and occur quickly, but I believe that alone, without appropriate content, they are shortlasting, for they are followed by little change within the patient. Nothing permanent is added to him, and little learning occurs. His integrative capacity is not increased, and his tolerance for frustration is not changed. I think that one must view the therapeutic system in a perspective oriented toward change over time. If we are thinking of short-term help for crucial crises in patients' lives, then artfulness based on sincere therapeutic striving is usually successful. If we are thinking of longlasting psychological (and physiological) changes within the patient which are effective in a variety of present and future life situations, we will then have to view the therapeutic process from an additional frame of reference. Certainly Dr. Bromberg is to be commended for having called attention to artfulness as a focus of scientific interest, for it may be the significant factor in some therapies and at least part of the total field of all of them.

TOWARD AN INTEGRATIVE THERAPY OF THE FAMILY[1]

NATHAN W. ACKERMAN, M.D.[2]

Family diagnosis and therapy represent a new venture in mental health. Family therapy makes its entry because there is historical need for it. It comes into being especially through the need to encompass the phenomena of the relations of personality and social role adaptation.

As the knowledge of psychopathology expands, we can discern some of the limitations of individual psychotherapy. The main focus of traditional forms of individual psychotherapy has been on the internal economy of personality. Its techniques have been pointed to specific pathogenic conflicts and the resulting symptoms within the person, but it has not adequately conceptualized the problems of total personality organization and integration of personality into the tasks of group living. To whatever extent individual psychotherapy fails to confront the problems of personality and social role, it fails to be a true adaptational therapy.

My personal conviction as to the potential value of family diagnosis and therapy is strengthened by several relevant considerations:

1. In child psychiatry and child therapy certain problems continue to balk solution due to our inability up to now to formulate the psychodynamics of the family group, and thereby make possible reliable correlations of child and family behavior.

2. The role of the family in the stabilization of the mental health of the adult person has been largely neglected. Because of this, traditional standards of diagnosis, therapy and prognosis of emotional disturbances in adults remain deficient in certain respects. The interrelations of individual and family contribute to the determinants of mental health at every stage of maturation, infancy, childhood, adolescence, adulthood and old age. Such relations influence the precipitation of illness, its course, the likelihood of recovery and the risk of relapse. Receptivity or resistance to therapy is partly the product of emotional interaction with other family members. Prediction of changes in behavior is accurate only to the extent that family processes are taken into account.

3. Disorders of personality have undergone progressive transformation related to sociocultural change and corresponding shifts in family structure and function. Individual psychotherapy has not caught up with this challenge. The core of the problem is a shift in personality organization, particularly in defense operations, which favors externalization of conflict and "acting out."

4. For several decades, individual psychotherapy has had the center of the stage. The lure of absorption with the intricacies of individual therapeutic technique has been strong. In the meantime, the gap between psychotherapy and clinical diagnosis grew ever greater. The challenge to achieve better diagnosis, to understand more precisely what is wrong with the patient, to work toward the goal of psychological specificity in treatment method, was frequently by-passed. Surely, further progress in psychotherapy is in danger of bogging down unless we turn back once more to sharpen the standards of diagnosis. Therapy cannot be primary; it must always be secondary to the precise assessment of pathology.

5. At still another level, the absorption with individual psychotherapy has diverted attention from the confrontation of our relative failure in the field of prevention. In the long view, if we are to further the cause of mental health, it is self-evident that the goals of treatment, prevention, and education to healthy values in human relations must be drawn into closer alignment.

Health and illness are functions of the interrelation of organism and environment. The family is the basic unit of human experience; it is the primary group into which the functions of personality are integrated. The development of a social psychopathology of everyday family life is a responsibility of the first priority, if we are to meet the mental health challenge of our time. Requi-

[1] Read at the 113th annual meeting of The American Psychiatric Association, Chicago, Ill., May 13-17, 1957.

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site to this goal is an expansion of the dimensions of diagnostic thinking so as to make the unit of evaluation the individual within his family group, rather than the individual assessed in isolation.

Psychiatric illness is a process; it is neither static nor is it ever an exclusively endogenous disorder. The interrelations of individual and family are an integral part of such illness. Historically, psychiatry tended to equate symptoms with illness but symptoms are only a part of illness, not its entirety. So soon as we expand the scope of our diagnostic concern to include total life performance and in particular the integration of personality into family roles, then the psychological life of the family as a whole must be encompassed in a broader conception of illness. In this scheme of things we are called upon to weigh, both in individual and family, the potentials for emotional health against the potentials for psychiatric distortion.

In the psychiatry of children, we are accustomed to evaluate the pathology of the family environment. In the psychiatry of adults, the study of family pathology has been neglected. It is true that the homeostasis of adult personality is relatively greater than that of the child. Nonetheless, the autonomy of the adult is partial and incomplete. We think of the behavior of the child as a kind of mirror of the psychological core of family. As we turn to the adult, however, we shift our view and perceive him as separate, autonomous and exclusively responsible for his life choices. This is a flattering view of the self-sufficiency of the adult person, but it far exceeds the known limits of human adaptation. Effective emotional integration into family roles is necessary for the stabilization of the mental health of the adult.

The goal of family diagnosis and therapy is to join person and environment rather than to dichotomize them. It signifies the assessment of adaptation and mental health, not exclusively in the frame of individual personality, but rather in the wider context of the person's organic involvement in his whole human community. It links person, family, community and culture. This constitutes a broader concept of the issues of mental health, requiring new hypotheses, new methods of research and validation, and different ways of applying the science of psychodynamics to the task of bettering the mental health of the community.

In previous publications(1-13), I have endeavored to develop basic concepts, dynamic principles and behavioral criteria which are relevant to the task of achieving family diagnosis. Foci of pathogenic disturbance are evaluated within the framework of the psychodynamics of the family entity *per se*, conflict between family and community, interpersonal conflict in family pairs, and finally, intrapsychic conflict and symptoms within individual family members.

In a recent paper(4, 12), I suggested a tentative scheme for establishing the lines of correlation between individual and family behavior. I repeat here only the bare outlines of this scheme.

Individual	Family Pair	Family Group
1. Self-image or psychological identity.	Psychological identity of family pair.	Psychological identity of the family group.
2. Integrative capacity or homeostasis of individual personality.	Integrative pattern or homeostasis of family pair.	Integrative pattern or homeostasis of the family group.
3. Pathogenic conflict, anxiety, symptoms or other anxiety manifestations, and the corresponding mechanisms of restitution.	Pathogenic conflict in family pair, its manifestations, and the mechanisms of control and restitution.	Pathogenic conflicts in the family group, interplay of overlapping conflicts, their manifestations, and the mechanisms of control and restitution.
4. Adaptation to family roles, capacity to accommodate to new experience, reality testing, learning and new growth.	Adaptation to patterns of reciprocal role relations, capacity to accommodate to new experience, reality testing, learning and new growth.	Adaptation to the overlapping patterns of family role relations, to group identity, strivings and values, and the family's capacity to accommodate to new experience, to reality test, to learn and to achieve new growth.

The rationale for this scheme and definitions of terms are given in the above-mentioned paper.

I should like now to highlight certain common clinical observations which document the need for a social psychopathology of family life and a corresponding program of therapeutic intervention. In a particular family, the first person referred for psychiatric care may be the most sick or the least sick member of the group. Psychiatric patients come from disordered families. If the psychiatrist exerts himself to inspect the relations of the primary patient with other family members, he will be rewarded with some cogent information. The primary patient, whether child or adult, proves often to be an emissary in disguise of an emotionally warped family. A patient may enter therapy on his own to escape the unbearable tensions of an unhappy family; or, he is brought to a psychiatrist by his family. In the latter case, a variety of motivations in other family members may play a part in this first referral. Another member of the family may need to relieve his own guilt; he may seek to control and make over the primary patient's behavior; he may wish to punish the patient; he may use the primary patient as a scapegoat behind which other family members hide their own psychiatric warp. Occasionally, the tendency is to send first to the psychiatrist the weakest and most defenseless member of the family, a child or the more docile of the marital partners.

For example, a man of middle years, severely hypochondriacal, confused and unhappy in his family life refers first for consultation his niece, then his son, then his second wife, using such persons as a kind of scout to test the psychiatrist's benign intentions. After that, reassured against his fear of harm, this man requests psychiatric help for himself. Such an individual proves often to be the center of destructive force in family relations. To a varying extent the intial psychiatric referral reflects the unseen purpose of restoring a pre-existing emotional balance or power alignment in family relations. Thus, the first person referred to the psychiatrist may be viewed as a symptom of disturbed family homeostasis.

Psychiatric illness as a single or isolated instance in family life hardly occurs. Almost always other members of the family are also ill. The sick behaviors of these family members are often closely interwoven, and mutually reinforcing. A critical focus of conflict and anxiety may move from one member of the family to another or from one family pair to another. In this sense the family group serves as a carrier of emotional disturbance. Sometimes two members share the same illness or one illness is the complement of the other or they may clash. In the latter instance the continuity of the family may be thrown into jeopardy. It is by no means rare that the core of family life is dominated by these reciprocal patterns of psychiatric disturbance.

The clinical importance of this problem is reflected in still another way. More often than not, the incentive for referral of a patient for psychotherapy is the outbreak of a destructive family conflict rather than the recognition of the existence of specific neurotic symptoms in one family member. Sometimes the existence of neurotic symptoms is not even known until the psychiatrist identifies them as such. Surely there is a relation between psychoneurotic personality and the occurrence of conflict in family relations. But this relation is a circular one. Conflict in family relations precedes the emergence of psychoneurotic symptoms and at a later point in time further conflict in family relations influences the fate of these symptoms or plays a role in the induction of new ones. It is significant clinically that the main spur for psychiatric referral comes frequently from the suffering caused by family conflict rather than from the existence of mental symptoms *per se*. In many families there is no thought of psychiatric referral as long as the neurotic tendencies of the family members are tolerably well compensated within the pattern of reciprocal family role relations. The timing of the demand for professional help tends very much to coincide with acute decompensation of the balance of family relations, bringing in its wake a distressing family conflict. Critical upsets of the homeostasis of a family group thus become a significant mental health challenge.

Moving one step further, we may consider

the same problem from still another standpoint. In the incipient phase of psychiatric illness, the breakdown in adaptation may at first be relatively localized. It may be restricted to the failure to fulfill the requirements of a single family role, as sexual partner, or parent, or household manager. It is only as the psychiatric illness unfolds and the decompensation of defenses against anxiety strikes deeper that the conflict and disordered social behavior spreads to invade progressively all the family roles and the entire range of life activity. We are therefore compelled in each such situation to match the role functions where moderate health is preserved against those other roles where adaptation is disabled by conflict. At certain stages a given individual behaves in a sick way in some parts of his life and maintains a relatively adequate adaptation in others. Performance in some life roles is impaired less than in others. In psychotherapy we make optimal use of this struggle between the more sick and the less sick parts of a person. We mobilize the residually healthy aspects of personality in the battle against the psychiatrically twisted parts. Can we not do likewise in the psychiatric approach to conflict in family relationships and the dynamics of the family as a whole? Can we not weigh the areas of relatively healthy functioning against those other areas which reflect crippling of family functioning?

Due to the fundamental interdependency and reciprocity of behavior in family relations, frequently if one member is treated, others must be treated too. If a disturbed child is treated, so must the mother be. If the mother is treated, the father needs attention, too.

This concern with the maintenance of a certain desired emotional balance in family relations is nowhere so convincingly reflected as in the family lives of psychoanalysts themselves. Male analysts have their wives psychoanalyzed and vice versa. Often, their children undergo analysis, too. In a certain sense, this trend reflects a need for a kind of vaccination procedure, a quest for immunity against the toxic effects of neurosis, so that the unity of the family group may be preserved. Opinions differ as to the efficacy of this prophylactic measure but the underlying intent is nevertheless clear. In a particular instance an analyst's wife, unanalyzed herself, felt isolated from the main stream of her husband's busy life and blurted out: "What we analysts' wives need is to form a union."

In marital disorders, if one partner enters therapy, sooner or later the other demands help, too. Not infrequently a marital partner, though untreated, becomes deeply involved in the therapeutic experience of the treated one, sharing vicariously his emotional experience. Sometimes they engage in a kind of spontaneous therapy of one another. This may be judged good or bad by different psychiatrists, but the fact is that it occurs.

This is well illustrated in a remark of one patient who told me that she was getting two analyses for the price of one. She thanked me for the remarkable improvement in her husband's behavior while she was undergoing analysis. If one closely observes such marital pairs, one often finds that the therapist is a silent presence in the intimate exchanges between husband and wife as they face problems, share joys, and even as they engage in sexual relations. Thus, the therapist influences family life not only during the therapeutic session, but also from afar, as a living presence in the emotional life of the patient and in his relations with other family members.

From one angle, psychotherapy provides a tool for the restoration of an old balance in family relations following an upset or for bringing about a new and more desirable equilibrium. This is why the psychotherapy of an individual needs to be viewed within the frame of the total life of his family.

These are but a few relevent, empirical observations which affirm the importance of approaching issues of mental illness and health in the wider context of the individual joined to his family group, in addition to viewing the individual patient as a separate person. It is axiomatic that an integrated therapeutic approach to the family entity, if it is to aspire to psychological specificity, must rest on the foundation of comprehensive diagnosis of the family.

Family therapy implies solution of the question: what to treat, whom to treat, when to treat. It requires a formulation of intra-

psychic conflict within the broader frame of salient patterns of family conflict, a correlation of disturbed homeostasis of individual personality with disturbed homeostasis of the family group. It also requires that the corrective approach to pathogenic foci be made within the context of an explicit judgment regarding a set of appropriate goals and values for a healthy family in our society.

Elsewhere(2) I have suggested that a therapeutic approach to the emotional disturbances of family life might be conceived in the following steps:

1. A psychosocial evaluation of the family as a whole.
2. The application of appropriate levels of social support and educational guidance.
3. A psychotherapeutic approach to conflicted family relationships.
4. Individual psychotherapy for selected family members oriented initially to the specific dynamic relations of personality and family role, and to the balance between intrapsychic conflict and family conflict.

Within this frame, individual psychotherapy is auxiliary to and dependent upon an integrated therapeutic program for the family as a social unit. Crucial to such a program is the consideration of appropriate levels of entry, and timing of such entry to affect in sequential stages specific components of the family disturbance. As an aid in the determination of such judgments, home visits by a trained person and careful recording of observations of family interaction in its natural setting are of the first importance. A check of insights gained in clinical office evaluations against intimate observations of family members made on a home visit reveals the special value of such aids to comprehensive family diagnosis. Interpretation of the relevant data according to a scheme already outlined in previous papers(14, 15, 16) is of material help in reaching judgments as to the need and suitable timing of intervention with social therapy, educational guidance, psychiatric first aid, psychotherapy for conflicted family pairs and individual psychotherapy for selected family members.

In acutely disturbed families, where loss of emotional control brings mounting signs of disorganized behavior, the assignment of a trained person to live temporarily with the family succeeds in restoring emotional balance in family relations. This has a preventive as well as therapeutic value. Occasionally, the use of such a device for first aid achieves a seemingly miraculous effect in calming a chaotic and violent family atmosphere, and thus reducing substantially the destructive effects on individual integration. This is especially pertinent to the protection of vulnerable children.

In further steps, family diagnosis and therapy moves ahead through a series of planned office interviews. Such interviews involve separate sessions with the primary patient interspersed with joint interviews of the patient with other family members. Since the primary patient is viewed both as an individual in distress and as a symptomatic expression of family pathology, the disturbance of this patient becomes the fulcrum or entering wedge for the appropriate levels of intervention into the disorder of the family relations. The sequence of office interviews is arranged with a view to further elucidation of the interrelations of the primary patient's affliction with the psychopathology of the family, and the corresponding interplay between his intrapsychic conflict and family conflict. The aim is to define the conflicts in which the patient is locked with other family members, to assay the disturbances in the bond of individual and family identity, and the interdependence of homeostasis of individual personality with the homeostatic balance of the role relations in family pairs and the family as a whole. It is possible, then, to mark out the patterns of family interaction which are potentially available for solution of conflict or for restitution.

It is important to appraise the extent to which family conflict is controlled, compensated or decompensated; how far family conflict induces progressive damage to salient relationships, impairs complementarity in role relations, and therefore predisposes to breakdown of individual adaptation. In this connection, complementarity in reciprocal family role relations is of special importance insofar as it assures mutual satisfaction of need, support for a needed self-image and crucial forms of defense against anxiety.

Impairment of complementarity undermines the stability of emotional integration into family. It aggravates the internal stress of the primary patient, weakens his control of intrapsychic conflict, and intensifies his psychiatric disablement. Some forms of family conflict are temporary and benign; they may deepen and enrich family ties and spur further maturation of family members. Other forms which are prolonged, severe, inadequately neutralized, move toward alienation in family relations and progressive damage to individual adaptation. The support of constructive forms of complementarity in family role relations is of central importance, therefore, in family therapy.

The crucial question is this: can family integration be preserved despite conflict, or does conflict tend to destroy the link of individual and family identity and thus magnify the malignancy of individual pathology? Within the frame of family conflict, what are the vicissitudes of the individual's opportunities to resolve or at least mitigate the destructive effects of intrapsychic conflict? What chance is there to discover a new and improved level of family role complementarity and with this, a better level of individual adaptation?

In the final analysis, this is an issue of interpendence between the individual's defenses against anxiety and the patterns of control and stabilization operating in family relations.

The appropriate cues to the sequential involvement of other family members are derived from the above described orientation to the dynamic relations of internal and external conflict. Of necessity, the proper sequence of such interviews varies from case to case, family to family.

In the case of a child patient the interviews may, for example, take the following order: an interview with the child and mother together, an interview with the child alone, an interview with child and father and finally, an interview with the two parents without the child. Or it might entail at an appropriate point an interview of the child, and both parents, or the child and sibling together with one or both parents.

In the case of an adult patient this might entail a sequence of interviews in which one begins with the primary patient and after that, a joint interview of this patient with the marital partner and possibly after that an interview of the primary patient with his or her parent and/or sibling, depending upon the cues which derive from a continuing process of family diagnosis. An unfolding of exploratory therapeutic interviews of this kind has the desirable effect not only of mobilizing receptivity to therapeutic influence in the primary patient; it also promotes in family relationships a more favorable climate for the progress of therapy. It makes clear, too, the patterns of benign and malignant psychiatric distortion in the various individual members of the family and allows the psychiatrist an opportunity to draw discriminating judgments about the timing of involvement of other family members in a therapeutic undertaking. At certain stages it may be appropriate to work concentratedly with mother and child together, husband and wife together, or even mother, father and child together. In this setting, one is able to deal directly with certain distortions of perception of family members of one another. Working at this level through a process of reality testing, mediated by the participation of the therapist, one is able to dissolve away various irrational projections of one family member upon another. If at a certain stage certain malignant interpersonal conflicts among family members are ameliorated, it becomes possible to resume systematic individual therapy of one family member with the expectation of an attitude of receptivity to therapeutic influence and with a reduction of resistance. Again one may find at a still later stage that tension and conflict in family relations agitate the primary patient to a state of resistance and again one may choose to deal with this resistance through a therapeutic interview of this patient with the involved family pair.

Thus a pattern of procedure evolves which is a kind of flexible combination of individual and group psychotherapy involving salient family pairs, occasionally threesomes, in which there is distortion of reciprocal family role relations and damaging conflict. The planning of sessions with individuals, and sessions with two or more family members must be discriminatingly timed in ac-

cordance with indications which derive from the active and flexible application of the principles of family diagnosis. From one stage of therapy to the next, as the balance of reciprocity in family role relations shifts, and the focus of pathogenic disturbance moves from one part of the family to another, the therapist must be ready to institute corresponding shifts of the level of therapeutic intervention.

Family therapy is complex. It deals with multiple levels of conflict. It may require a division of labor, in which various phases of the therapy are carried out by members of a clinical team. But these therapists do not function in isolation with individual family members. To the contrary, periodically they meet together with the entire family group to deal with certain layers of shared conflict.

I have described here a tentative approach to illness as a function of family as well as a manifestation of individual behavior. This is only a bare beginning in a complicated but important clinical task.

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HYSTERIA, THE HYSTERICAL PERSONALITY AND "HYSTERICAL" CONVERSION [1]

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"Hysteria," a word whose origins go back to the hazy antiquity of medicine and psychiatry, has passed through many vicissitudes of meaning during its long career. In the course of time the term has successively acquired a number of meanings, some of which, although partially or wholely discredited, have tended to cling to it. As a result of this process of semantic encrustation, and also because it has been used to describe quite different and poorly delimited varieties of behavior, "hysteria" has taken on some of the attributes of both a fossil and a chameleon, so that it is understandable that there is often a total failure of agreement as to just what is meant when something is referred to as "hysteria" or hysterical. This confusion applies equally to the derivatives, conversion hysteria, conversion reaction, and hysterical character or personality, a fact which has been noted repeatedly in the psychiatric literature(1, 2, 3, 4). It will be the primary purpose of this paper to attempt to clarify this situation and to provide some basis for consensus when these diagnoses are used.

Another issue, about which there has been a good deal of question, has been the relative frequency of "hysteria" in men and in women. We believe that this is partly a semantic problem, the resolution of which will be aided by defining more clearly the terms involved and by an understanding of their historical development. Possible reasons for the observed differences in the occurrence of hysterical phenomena in the sexes will be discussed.

It appears that "hysteria" is currently used in at least 5 senses: 1. a pattern of behavior habitually exhibited by certain individuals who are said to be hysterical personalities or hysterical characters; 2. a particular kind of psychosomatic symptomatology called conversion hysteria or conversion reaction; 3. a psychoneurotic disorder characterized by phobias and/or certain anxiety manifestations—called anxiety hysteria; 4. a particular psychopathological pattern; 5. a term of approbrium.

In this paper, although we are concerned primarily with the first two meanings, the latter three deserve some comment. The term anxiety hysteria was introduced by Freud to describe a type of psychoneurotic disorder in which repression, the principal defense, is supported by the mechanism of displacement. There is no doubt of the cogency of Freud's views of the underlying psychopathology of the syndrome which manifests itself principally in the form of phobias. However, we cannot be certain that every clinical case of a phobia has these mechanisms as its basis, nor that in every instance repression and displacement will cause the appearance of phobic anxiety. We feel that in the present state of psychiatric knowledge psychopathological patterns are not sufficiently reliable and invariable to be used as the only criteria for diagnoses, and that on the whole, imperfect and overlapping as they may be, symptom complexes should be the bases for diagnosis. Not only for this reason but because it avoids another confusing use of "hysteria," we agree with the *Diagnostic and Statistical Manual* which uses the diagnosis "phobic state" rather than "anxiety hysteria."

"Hysteria" in a more general sense is sometimes used as a diagnostic label in an individual with a particular psychosexual history and psychopathological pattern. When this is done without sufficient regard for the symptom picture exhibited, the objections noted in the preceding paragraph will apply.

"Hysteria" used in a name calling sense is a phenomenon which is not uncommon especially in a hospital setting and more often among physicians untrained in psychiatry than among psychiatrists, although we ven-

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ture to suggest it has been known to occur in some of the less official conversations of psychoanalysts. Here the motivation is largely unconscious, a reaction to the frustrating and hostility-provoking behavior of certain patients. This usage of the term has spread to non-medical circles, as when someone whose behavior is exasperating is scornfully called an "hysterical female." Incidentally, the possible significance of the fact that it is almost invariably a woman to whom the epithet is applied will be the subject of later comment. It has been pointed out by one of the authors in another communication(5) that the infrequency with which malingering is diagnosed may be explained as a reaction formation to the hostility engendered in doctors by certain patients with non-organic disorders who are almost invariably called hysterical no matter how transparently conscious the deceptive behavior may be. In general we feel that there is no need to labor the point that the production of frustration and hostility in the observer is not a reliable criterion on which to base a diagnosis.

"Hysteria," used to designate the hysterical personality or character, refers to a well known entity which, however, is more often talked about than defined or delimited. To our knowledge, since the two best known descriptions, that of Wilhelm Reich(6) and that of Wittels(7), there has been no contribution to the literature dealing specifically with the diagnostic criteria by which the hysterical personality can be recognized. In general, psychiatrists, particularly those interested principally in psychotherapy, seem to understand what their colleagues are talking about when they refer to it, but the limiting criteria by which the condition can be recognized are not clear. An illustration is the fact that the members of the committee in charge of revising the psychiatric section of the *Diagnostic and Statistical Manual* to its current accepted form were unable to agree in a description of the hysterical personality and thus no such diagnostic label appears in the manual although the compulsive character is described and included(8). As Marmor(9) has pointed out, it seems that the compulsive character is more sharply defined than the hysterical.

In attempting to delineate the hysterical personality we decided to confine ourselves to observable behavior rather than to rely on psychopathological patterns alleged to underly the condition, for the reason mentioned previously. The fact that these patterns are constantly being revised is illustrated by a recent paper(9) which emphasizes the importance of oral elements in the previously accepted, predominantly phallic-Oedipal hysterical neurosis. It was felt that the most effective way to arrive at an acceptable description of the distinctive behavioral characteristics of the hysterical personality would be to consult a representative group of publications referring to the subject and to abstract the elements agreed upon by most or all of the authors involved. The authorities consulted included older and more recent papers, a psychiatric dictionary, and a number of monographs and textbooks (3, 6-7, 9-17). In studying these contributions we found that certain behavioral characteristics were mentioned repeatedly in terms which are either identical or synonymous with each other. These characteristics, in the words or phrases used by the authors referred to, are as follows:

1. Egoism, vanity, egocentric, self-centered, self-indulgent.

2. Exhibitionism, dramatization, lying, exaggeration, play acting, histrionic behavior, mendacity, pseudologia phantastica, dramatic self-display, center of attention, simulation.

3. Unbridled display of affects, labile affectivity, irrational emotional outbursts, emotional capriciousness, deficient in emotional control, profusion of affects, emotions volatile and labile, excitability, inconsistency of reactions.

4. Emotional shallowness, affects fraudulent and shallow go through the motions of feeling.

5. Lasciviousness, sexualization of all non-sexual relations, obvious sexual behavior, coquetry, provocative.

6. Sexual frigidity, intense fear of sexuality, failure of sex impulse to develop towards natural goal, sexually immature, sexual apprehensiveness.

At this point, we found a disagreement between the older and the more recent writers, the former emphasizing the quality of sug-

gestibility, while the latter paid less attention to this characteristic and were more inclined to note the demanding, dependent quality of these patients, which reveals itself particularly in the sticky transference relationships they develop in psychotherapy. Because this latter attribute was closer to our own experience and because abnormal suggestibility was probably more important in the 19th century cultural milieu in which it was emphasized, we decided to make the demanding, dependent quality our 7th criterion for the diagnosis of the hysterical personality.

Although other qualities were named by various of the authors included in the survey, they either were mentioned too infrequently to be used or were so vague and nonspecific as to add nothing meaningful to the total picture. We believe that these 7 behavioral characteristics can be used to provide generally agreed upon criteria on which to base a diagnosis of the hysterical personality. To put the description in more concise terminology than the above it might be said that the hysterical personality is a term applicable to persons who are vain and egocentric, who display labile and excitable but shallow affectivity, whose dramatic, attention seeking and histrionic behavior may go to the extremes of lying and even pseudologia phantastica, who are very conscious of sex, sexually provocative yet frigid, and who are dependently demanding in interpersonal situations.

To leave the hysterical personality for the moment, another sense in which hysteria has been used is to describe a particular form of psychosomatic symptomatology. This is, of course, the time honored conversion hysteria, the manifestations of which, certainly prevalent during the Middle Ages and earlier, occupied the attention of men of genius like Charcot, Janet and Freud during the middle and later 19th century. Since that time and especially after the first period of Freud's writings, the condition has received less attention, and there is a widely held belief that it now occurs much less often. It is certainly diagnosed less frequently than formerly but to what extent this represents a real and to what an apparent, decline in its occurrence is less obvious(5). In some hands the diagnosis of conversion hysteria is applied to almost any psychosomatic manifestation, certainly an undesirable practice. We agree with the distinction made by Franz Alexander(18) between the vegetative or organ neuroses and the conversion reactions, which restricts the use of the latter to reactions occurring predominantly in structures supplied by the voluntary nervous system, representing symbolic resolutions of emotional conflicts, while the vegetative neuroses result from excessive stimulation of sympathetically innervated organs and represent the physiologic concomitants of prolonged unresolved tension. When we refer to conversion reactions, we are using the term in this restricted sense.

What is the relationship between the hysterical personality and the so-called "hysterical" conversion reactions? Do the conversion reactions, as for example aphonia, paralysis of a limb, convulsions or loss of sensation over half the body without organic basis, occur only or principally in the kind of person who satisfies the criteria we have laid down for the hysterical personality, or are these manifestations available as psychogenic defensive operations in other personality types?

One way of approaching this problem is with a historical perspective. In the heroic age of "hysteria," when Charcot was demonstrating his "grandes hysteries" at the Salpêtrière, "hysteria" was diagnosed in terms of its often spectacular symptomatology rather than on the basis of particular personality characteristics. This was especially true because Charcot regarded hysteria as an organic degenerative disease rather than a psychogenic one. As this concept was gradually abandoned through the work especially of Bernheim and Freud and it came to be accepted that psychological causes play the major role, it was natural that more attention would be paid to the personality characteristics of patients displaying hysterical phenomena. It seems likely that as time went on, a certain group of personality traits became identified as likely to be present in patients showing conversion reactions. That this was a gradual, largely unconscious process is suggested by the fact that, so far as I am able to determine, Freud never described

the hysterical personality or used the term,[8] and that although the personality characteristics of hysterics were mentioned in many publications, there were no articles specifically on the hysterical personality until those of Reich(6) and of Wittels(7). We believe that a factor of great importance in the development of the present day concept of the hysterical personality as well as one of the reasons for the confusion existing about the subject, is the fact that at the time of Charcot it was widely (though not universally) held that "hysteria" was a disease only of women. Thus the diagnosis of "hysteria" was applied almost exclusively to women and the personality type which emerged as characteristic of "hysteria" was based on observation of and description of women alone.

The idea that the picture of the hysterical personality which gradually evolved in this manner was a description of the kind of people who developed symptoms of conversion hysteria thus was a natural consequence of the historical development of the concepts. That it is still a widely held belief is attested to by a good deal of the current relevant literature where a description of the hysterical personality is usually given as simply one of the manifestations of conversion hysteria and where no attempt is made to differentiate the two concepts. This is illustrated in a recent monograph on the diagnosis of "hysteria" by Abse(20) and it is stated unequivocally by Wechsler(16) who says "While the hysteric symptoms may come and go suddenly and inexplicably—, they do not generally sprout forth in persons who have not previously shown some of the general character of a hysteric personality." Marmor(9) implies the same thing when he speaks of hysterical symptoms and their underlying character structure. However, some authors hold a contrary view, that is, that the occurrence of conversion symptoms is not restricted to one particular type of personality. This is expressed by Kretschmer(12) who says ". . . different personality types which cannot be well brought together into a uniform picture are about equally disposed to the hysterical reactions." Bowlby(21) considers conversion hysteria and the hysterical personality to be two separate conditions. He examined 11 patients with what he regarded as conversion symptoms and came to the conclusion "that symptoms of so-called Conversion Hysteria are to be found in radically different types of personality." However, Bowlby's paper may be criticized on the grounds that his criteria for the diagnosis of a conversion reaction are so broad as to include examples of what we would call vegetative neuroses. The occurrence of what seem to be hysterical conversion symptoms in patients who subsequently develop schizophrenic psychoses is well know, as witness the paper of Noble(22).

In order to study this question of the relationship between the so-called hysterical conversion phenomena and the hysterical personality, the following investigation was made. The hospital charts of all patients who had had a discharge diagnosis of conversion reaction in the VA Hospital, Washington, D. C. between October, 1954, and October 1956, were reviewed. Thirty-six such charts were found and of these 19 were eliminated, leaving a total of 17 which could be included in the study. There were several reasons why those cases were not used in the series. The criterion previously described, for the diagnosis of a conversion reaction was adhered to, and if there was any question in the mind of the authors about this, the case was eliminated. This was also done if there was any considerable doubt about the presence of significant organic nervous system disease either as causing or influencing the symptoms. A number of the cases had been on the medical or surgical services and some of these, for one reason or another, had not had psychiatric consultations. Thus the 17 cases remaining included all who had unequivocal conversion reactions, uncontaminated by relevant neurological disease and who had been subjected to psychiatric investigation, in most instances conducted by the junior author of this paper, and in some cases, supplemented by psychological testing. The symptomatology represented included pains in various areas, headaches, paresis of a limb or limbs, tremors, sensory disturbances such

[8] His closest approach to this was in his paper on libidinal types(19) in which he described the erotic type as persons whose main interest is focused on loving and especially being loved, and suggested that this type is predisposed to the development of hysteria.

as hemi anesthesias, glove and stocking areas of sensory loss, monocular or binocular blindness, seizures, generalized weakness, aphonia and torticollis. No detailed analysis of the symptoms will be made here since this, along with other data and observations about this group of patients, will be the subject of another communication. For the purposes of this paper, we are primarily concerned with the personality types characteristic of the patients in the group. This was determined in each instance using the nomenclature of the *Diagnostic and Statistical Manual,* except in the case of the hysterical personality where the criteria described previously in this paper were used. Of the 17 patients there were 15 men and 2 women. None was felt to be a normal personality. The pathological personality types into which they fell are as follows:

Passive-aggressive personality		
Passive dependent	6	7
Passive-aggressive	1	
Emotionally unstable personality		2
Inadequate personality		2
Schizoid personality		2
Paranoid personality		1
Hysterical personality		3
		17

Thus of the 17 patients with unequivocal conversion reactions, only 3 satisfied the criteria we have laid down for the diagnosis of the hysterical personality. We consider it significant that these 3 included both women in the series leaving only one man of the 15 who could be considered an example of the hysterical personality.

These results are confirmatory of the opinions of Kretschmer(12) and Bowlby (21) and of the clinical impression of many who have worked with this kind of psychiatric material. We believe it can be stated that the so-called "hysterical" conversion reactions do not occur solely, by any means, in patients who present the characteristics of the hysterical personality. To put it another way, there is no single pattern of personality traits to be found in individuals presenting conversion phenomena, which can be considered to be symptomatic defensive operations available to many different sorts of people. For this reason we believe, in cases in which the conversion symptomatology dominates the clinical picture, that the term conversion reaction should be employed rather than conversion hysteria, as is done in the case of the phobic state. In other instances, where other symptomatic manifestations are more important the conversion phenomenon should not be the sole basis for diagnosis but may be regarded as an incidental pathological defense. At the same time, there should be a place in the Diagnostic Manual for the hysterical personality since this is an important entity and deserves a diagnostic niche. The characteristics previously enumerated would provide criteria delimiting it. In cases in which conversion phenomena and the hysterical personality coexist, the diagnosis would be hysterical personality with conversion reaction. Thus for the portmanteau term conversion hysteria would be substituted one of the three more precisely defined diagnoses, conversion reaction, hysterical personality, or hysterical personality with conversion reaction.

But having said this, we are still left with the problem of the sex incidence of the hysterical personality, a problem which is exemplified by the findings in our series in which both women are included in the hysterical personality rubric while only 1 man of the 15 included fell into this category. This result only lends support to a fact which is widely recognized, that the hysterical personality is found far more often in women than in men. Indeed, it is this observation which probably lends support to the opinion of those who maintain that men do not develop hysteria. This was, of course, the prevailing belief (though Lepois(23) in the 16th century described male hysteria) until Freud declared the opposite before an unbelieving audience in Vienna. A recent example of this school of thought is a paper by Robins, Purtell and Cohen(24), "Hysteria in Men," wherein it is stated that true hysteria probably does not occur in men or else is extremely rare. We believe that these apparently contradictory views can be resolved by the realization that "hysteria" is being used by the authors named in the two different senses of the hysterical personality and the conversion reactions. If "hysteria" is thought of in the former meaning it will be

found to occur more often in women than in men, while if the latter usage is being employed, it can be shown readily that both men and women develop conversion reactions. As a matter of fact, since in our culture today, these are often associated with the factor of monetary compensation, there may be more examples in the male sex than in females although we are not aware of any data supporting this possibility. Thus, some of the confusion over the occurrence of hysteria in men is essentially a semantic distortion which could be cleared up by the use of the two diagnostic terms, conversion reaction and hysterical personality, as previously suggested, instead of the blanket terms, "hysteria" or conversion hysteria.

There remain to be discussed possible reasons why the hysterical personality is so much more a condition of women than of men. Freud(24) has given an answer which is an outgrowth of his theories on the differing psychosexual development of women and of men. This explains the predisposition of women to hysteria as a consequence of the massive wave of repression necessary to effect the shift of libido from clitoral to vaginal erotogeneity and to repress the masculine component of their bisexual constitutions, in the transition from the phallic to the mature genital stage, a shift unnecessary in boys. In addition to the fact that Marmor(26) in a recent paper summarizes evidence casting doubt on the assumption that genital erogenicity in the female is normally transferred from the clitoris to the vagina, this explanation is unsatisfactory since it seems to imply that mature women who have successfully achieved genital (vaginal) sexuality would be prone, by reason of the tremendous effort of repression needed to reach this goal, to the development of the hysterical neurosis just as much as (or even more than) those in whom psychosexual maturation was incomplete. Another psychoanalytic explanation suggests that castration anxiety in the female tends to fixate her in the Oedipal stage while in men it tends to foster the resolution of the Oedipus complex(9). Both of these explanations rely strongly on the theory that each of the mental disorders can be limited to a certain level of libidinal development. As Knight(27) has pointed out, this has tended to present "a one-sided libidinal theory of human functioning" which "needs to be supplemented extensively with the findings of ego-psychology." Marmor (9) in his paper which emphasizes the role of oral mechanisms in the hysterical personality suggests that the reason for the preponderance in females is that the traits characteristic of this personality are regarded by society as being feminine and thus more acceptable in women than in men.

We agree essentially with Marmor's explanation and believe it can be expanded. In the first place the historical development of the concept of "hysteria" made it inevitable that traits characteristic of women rather than men would be described since, as we have pointed out, only in women was the diagnosis made in the great majority of cases. Also the descriptions were being made entirely by male psychiatrists who may have elicited responses which might not have been obtained by a woman examiner. Thus what has resulted in the case of the hysterical personality, is a picture of women in the words of men, and, as a perusal of these traits will show, what the description sounds like amounts to a caricature of femininity! The truth of this can be seen if one attempts, as we have done, to apply the criteria for the hysterical personality to male patients, when one comes to the realization that the man who would most closely fit the description would be a passive homosexual. As a matter of fact, the one male in our series who was called a hysterical personality appeared very feminine. The description of the male hysterical personality in Reich's(6) paper also uses terms emphasizing femininity. A situation analagous to the one described might be imagined if women psychiatrists spent some generations coolly and rather inimically observing the less attractive foibles of males, and then put them together as the manifestations of a kind of personality characteristic of men! We have no doubt that some men could be found who would fit the description, since social and biological pressures have the effect of making available and acceptable modes of behavior which are different for women and for men.

Finally we would like to point out that the conception of the hysterical personality presented in this paper emphasizes what might be called the relativity of neurosis and per-

sonality disorders, that is, the importance of historical and cultural, as well as biological factors, to the understanding of emotional disturbances.

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A NEW SYMBOL APPROACH TO PERSONALITY ASSESSMENT

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Symbols are the meeting ground of many sciences and arts because they are one of the basic mechanisms of thought construction. One of the most primitive forms of adaptation is conditioning. Generalization follows, and fast on the heels of generalization comes symbol formation as a necessary element in the process of conceptionalization. When man first saw a lion he generalized that all such yellow shaggy-maned creatures were to be avoided and thus he saved his life. But soon this dangerous animal came to represent power and dominion. Kings and tribal chieftains used pictures of lions as badges of authority and, in the Middle Ages, this animal became one of the most popular symbols on the coats-of-arms which were an essential part of heraldry.

Since symbols permeate all human activity, it is not surprising to see the important role that is assigned to symbols in psychoanalytic theory, projective testing, sociology and in the objective sciences such as physics and mathematics. Yet among psychological techniques of personality evaluation, symbols have been treated with relatively scant respect. Of course there is no psychological test in existence in which the symbolic nature of the responses is not crucial to the interpretation. We can not get away from symbols if we wish to study personality. However, there have been few, if any, techniques where an outright attempt is made to study culturally structured symbols as an aspect of man's thinking. Psychological tests which revolve around the idea of symbols are rare, especially those where the test materials, by virtue of their construction, are first enmeshed in the culture and then in the individual psyche.

A test for personality assessment using culturally structured object symbols, known as the Kahn Test of Symbol Arrangement (6) has been fully described elsewhere(8). The Rorschach which was developed by essaying individual or small group reaction to a given set of stimuli is typical of the methodology of test constructionists. In some cases the construct or idea precedes the testing of the instrument's validity. In others, ideas or rationales are held in abeyance until so-called empirical evidence accumulates with sufficient strength to permit theory formation. Each of these approaches has its advocates and critics. No matter which approach is taken, the test theories evolved are soon challenged by other investigators who use different groups and obtain different results. Frustrations from conflicting, contradictory, inconclusive "evidence" of test validity have inspired some psychologists to advocate the "cook book" approach to personality testing. Such psychologists suggest that a statistical tabulation of "yes, no," and "I don't know" responses to a series of written questions yields the most practical and only scientific approach to the probing and cataloging of the mind—the complexity of over nine billion unpredictable neural synapses in the human cortex notwithstanding.

The approach to behavior through culturally structured symbols has been different from the very beginning. No new pictures, blots, designs, forms or geometric shapes were thrust upon students of Psychology 1A or other unsuspecting victims of psychological test validation. This came later. The first step was to find something which already had meaning and significance. It was necessary to find something about which there could be relatively little argument. Something had to be discovered which everyone from butcher to candlestick-maker, from boy scout to admiral of the fleet, would agree has *meaning*. Such diverse persons had to agree not only that meaning was there but that special meaning was present—in other words, that the meaning was limited to a well defined area of thought and experience and that this was the same for them all. This can happen only if the meaning is conveyed to the subject through cultural infiltration as well as through the individual cognition. Only if individual conceptualization is mediated through cultural processes can such unanimity of interpretation be expected.

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How can proof be obtained that meaning exists? The answer was *money!* Living in a rather materialistic world we came to the conclusion that if people were willing to pay for something with the coin of the realm, the purchase represented a real need of some kind—real in the sense that the buyer believed it to be real. Few, if any, psychological test materials would be bought by the average man on the street for their intrinsic worth. We can not conceive of any sane person buying ink blots or Thematic Apperception Test cards simply because the inherent beauty of these materials appeals to him. The job was to find some materials which had *à priori* appeal as proven by the fact that very many people were willing to lay out cash for them and that a cool-headed businessman was solvent only because the demand for the objects was sufficiently large and universal to enable him to make a profit.

Such objects were found in a hobby shop in Los Angeles in 1949. This was described in the first validation study as follows:

> The idea of using plastic shapes of common objects for personality diagnosis occurred while observing purchases of such objects in a Los Angeles hobby supply shop. An object's appeal depended on its size, color, material and shape. Forms most liked by some people were ignored by others. The question arose—could the acceptance, rejection, and the manner of handling specific objects give insightful information regarding an individual's personality dynamics, his state of mental health or his cerebral competence(8)?

Fifteen such objects were finally used in the construction of a test of symbol arrangement. The subject is required to arrange these on a flat strip which is marked off into 15 consecutively numbered segments of equal size. He is asked to give his reason for the arrangement. He does this twice to enable him to change his first method of arranging the objects if he wishes. The next step involves having the subject interpret each of the objects symbolically in the sense that the American flag is symbolic of the United States as a nation. When this is done, the strength of the configuration created by his arrangement is tested by asking him to recall the previous arrangement. A final procedure requires him to arrange the objects in order of his preference and then to sort them according to their meaning. The whole procedure takes from 10 to 20 minutes. A scoring method, derived from t-ratio comparison of normal and clinical groups, enables the examiner to draw a graph of symbol-conception and to describe a symbol pattern. Scoring takes approximately 5 minutes(6).

The objects used on the test are: 3 heart shapes differing in color, size, thickness, and translucency; 3 stars, 2 of which are identical; 2 butterfly shapes varying in outline, size, width, and color; a green amorphous object; a blue anchor; a transparent circle; an equilateral cross; 3 dogs often seen as a family by the subject. Two of these dogs are alike except in color, the third resembles one of the others in color but not in shape. If one wishes to combine the items in the arrangement on the strip for their cultural associations, one must sacrifice dozens of other logical methods of arranging them, such as color, size, appearance, etc. Some insight into the strength and nature of the "cultural pull" that these objects elicit in a given individual may be gained by a comparison of his performance with a norm group.

This approach to the personality has been described by Shoben as ". . . the KTSA (Kahn Test of Symbol Arrangement) is a simpler, more widely applicable situation than most instruments on hand for investigating developmental patterns and various attributes by psychopathological behavior(14)." The work of Fils(4), Brodsley(1), Esterly(3), Szenas(15), and Walkup(16) has born out this contention. The all encompassing nature of cultural symbols is further indicated by the studies of Shafer(13), Goulding(5) and Kahn(7, 9, 11, 12).

Summary

Psychologists have overlooked the possibility of first going to the culture and then to the individual in obtaining ideas for the construction of psychological instruments. A test of symbol arrangement has been developed in which this procedure has been reversed. Objects with established cultural validity were used to study and to classify human behavior. A number of studies were cited to show the wide applicability of this cross-disciplinary approach to psychological testing.

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PROGNOSTIC VALUE OF PERCEPTUAL DISTORTION OF TEMPORAL ORIENTATION IN CHRONIC SCHIZOPHRENICS

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The word "orientation" derives from the Latin word "orient"—rising, because the seamen used to look for the rising sun to determine the East and thus find their bearings. In psychiatry, "orientation" refers to the knowledge of one's own temporal, personal, and spatial relationship. An individual has intact orientation if he relates himself correctly to his surroundings including the concept of time. Intact orientation depends on intact perception and on the intact integration of this perception. Perception is the mental process by which the nature of an object or image is recognized by arousal of associative memory complexes. In organic brain disorders orientation is often impaired because of impairment of memory associations. In schizophrenia, as Bleuler emphasized, memory as such is not disturbed. However, "the capacity for associative recall of memory images is certainly altered." This causes, according to Bleuler(1), considerable secondary disturbances of integration of perception concerning spatial and temporal orientation. He described the phenomenon in schizophrenia which he called "double orientation" wherein a patient expresses a delusion about time, place and person while at the same time he also knows, in a purely intellectual sense, the actual relationship existing between him and time, place, and person. The delusion takes precedence over the real fact. In 1955 Mettler(2), an organicist, expressed the belief that as a result of perceptual difficulty a gradual dissolution between real external and personally induced internal existence occurs, making it difficult or impossible for the schizophrenic to establish contact with reality.

In working with a large group of chronic male patients in the Middletown State Hospital a psychopathological phenomenon was noted in many of the chronic deteriorated schizophrenic patients which might best be called "perceptual distortion of temporal orientation." It seems to be rather pathognomonic in the chronic, dull, apathetic, regressed schizophrenic patients and of great prognostic value when present, suggesting unfavorable outcome.

When such patients were questioned about their year of birth and the present date, they *often* gave the correct answer, but when asked their age they frequently gave an age which coincided with the age at which they became ill or were hospitalized. The age they now claimed to be was often a fraction of their true age. When questioned further about this obvious discrepancy, they gave explanations such as the following: 1. A 60 year old patient said "I know I should not have white hair since I am only 28 years old." 2. Another patient stated, "Oh, yes, I was born in 1900 but I am only 25 years old; it is somebody else who is 57 years old." In both cases, the age claimed by the patients coincided with their age upon admission. Those patients exhibiting this phenomenon distort their perception of external reality to such an extent that it conforms with their dereistic world.

In a preliminary clinical investigation of the nature and significance of this unique psychopathological phenomenon, first noticed by the senior author J. L., 50 patients who, according to the case histories, had shown a perceptual distortion of temporal orientation, were interviewed. Each patient was asked the following questions:

1. What year is it now?
2. How old are you?
3. When were you born?
4. Who is President of the United States?
5. How much does a package of cigarettes cost?
6. How much does a new Chevrolet car cost?

[1] Address: Box 1453, Middletown, N. Y.

The resulting figures in Table 1 show the following relationship:

TABLE 1

PERCEPTUAL DISTORTION OF TEMPORAL ORIENTATION IN 50 CHRONIC SCHIZOPHRENICS

	Mean	Standard deviation
Real age of patients.....	47.54 years	9.96 years
Age claimed by patients..	26.04 years	6.90 years
Age at admission.....	25.40 years	6.07 years
Duration of illness.....	22.32 years	10.42 years

Definition:

The standard deviation depends on the homogeneity or variability of the data. Approximately ⅔ of the cases are contained within plus or minus one standard deviation of the mean.

The real mean age of the 50 interviewed regressed schizophrenic patients who showed perceptual distortion of temporal orientation was 47.54 years with a standard deviation of 9.96 years. The mean age given by these patients upon questioning was 26.04 years with a standard deviation of 6.90 years. When the mean age claimed by these patients was compared with their mean age on admission, an astonishing relationship was found. The mean age claimed was approximately equal to their mean age on admission, plus 7 months. That suggests that it generally took less than a year, after the illness was sufficiently severe to warrant hospitalization, for the temporal orientation to become arrested. What on admission was correct perception of age, did not grow with the years and, being static, became more and more distorted as time went on and the real age increased. The very great and highly significant statistical difference in the real and stated ages—namely 21.50 years—demonstrates the extreme degree of distortion in temporal orientation. The duration of illness with a mean of 22.32 years and a standard deviation of 10.42 years reflects the chronicity of their illness. Only 35 out of 50 patients were able to state their birthday correctly and only 18 were able to give the present year correctly. All others gave prior years. The fact that all who showed distortion, did so in a backward direction, suggests that for many of these patients time has essentially stopped. This correlates with the fact that none of the patients gave a chronological age in excess of his true age, as is encountered in the confused organic cases.

TABLE 2

RESPONSES TO SUPPLEMENTARY QUESTIONS

Question	Response	Number
President of the United States	President Eisenhower	5
	Previous presidents	30
	Other names	5
	No reply	10
Cost of package of cigarettes	Less than $.21	27
	$.21 to $.28	5
	More than $.28	2
	No reply	16
Cost of new car	Less than $1,000	16
	$1,000 to $1,500	4
Chevrolet	$1,500 to $3,000	5
	More than $3,000	8
	No reply	22

Data on the President, cost of cigarettes, and cost of new Chevrolet are presented in Table 2. These data imply that the distortion is apt to not only refer to the very personal area of age but is also likely to be shown in other areas. In other words, the data suggest that with a person whose distortion of his perception of his own position in time is say, 10 years, one might well expect some of his values and concepts to be similarly distorted to the same degree as the personal temporal perception.

SUMMARY AND CONCLUSION

The data obtained by systematic investigation have proven the clinical observation of perceptual distortion of temporal orientation in regressed schizophrenics. The fact that the mean stated age was approximately equal to the mean age on admission plus 7 months suggests that it took, on the average, a relatively short time after admission for the temporal orientation to become arrested. It also suggests that apparently hospitalization took place rather late in the course of the disease despite the relative youth of the patients. With increasing age the distortion becomes more conspicuous. These observations dramatically illustrate the known clinical fact of the importance of early treatment before permanent distortion sets in. Since we have not found this phenomenon in other than

clinically dull, apathetic, and regressed schizophrenics we are led to interpret its presence as indicative of poor prognosis, and of differential diagnostic value. This preliminary investigation lends credence to Mettler's contention(2).

There is reason to believe that prognosis based on the presence or absence of perceptual disorder would be more reliable and indicate results earlier than prognosis that relies mainly on evidence of presence or absence of affect. The psychiatric patient, like any other, is to be studied as a whole personality possessed of structure and organic function as well as psychodynamic mechanisms.

It is noteworthy, that even in those chronic regressed schizophrenics, whose behavior and hospital adjustment improved following ECT and/or Thorazine medication, the perceptual distortion of temporal orientation remained unaffected.

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CLINICAL NOTES

VESPRIN AND MOPAZINE: TWO NEW PHENOTROPIC SUBSTANCES

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In the search for more effective and less toxic phenotropic drugs the effects of 2 new substances, Vesprin [2] and mopazine [3] were studied in gross clinical aspects of mental syndromes.

Vesprin, a phenothiazine derivative containing fluorine was administered to 47 patients (17 schizophrenics, 14 manic-depressives and 16 neurotics) with a daily dose range of 50-200 mgm for an average period of 4 weeks. There were 15 females and 32 males with an average age of 35. The criteria of improvement consisted of 4 items: ward management; subjective comfort; ability to go home, and ability to work(1). An increase or amelioration in 4, 3 or 2 of these criteria was categorized as marked, moderate or slight improvement respectively. All patients were concomitantly on supportive psychotherapy. Moderate improvement was observed in 14 patients (3 schizophrenics, 6 manic-depressives and 3 anxiety neurotic states) and slight improvement in 9 patients. Side effects consisted of: extrapyramidal symptoms of 9 cases, beginning in jaw muscles and spreading to the trunk; anxiety in 9 cases, in 5 of which it was related to the motor disturbances; inhibition, marked in one case in form of total immobility without rigidity; sleepiness in 5 cases. Weekly liver function tests, blood counts and urine analysis did not show any alteration. Blood pressure change was minimal. The general impression was that the drug was a potent substance, therapeutically effective in doses below 200 mgm daily; and that because of its complex action which went beyond mere tranquillization it required further study.

Mopazine, another phenothiazine derivative, was administered to 44 patients (11 schizophrenics, 11 manic-depressives, 16 neurotics and 6 organic psychotic states) with a daily dose range of 100-1200 mgm for an average period of 4 weeks. Only 9 patients showed slight improvement. There were no side effects. The general impression was that the drug was too weak, not requiring further investigation.

[1] From McGill University, Dept. of Psychiatry, Allan Memorial Institute and Verdun Protestant Hospital, Montreal.

[2] Squibb's MC 4703.

[3] Poulenc's R.P. 4632.

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TRIFLUPROMAZINE AND TRIFLUOPERAZINE: TWO NEW TRANQUILIZERS

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Since the introduction of chlorpromazine there have been systematic attempts to find more active compounds related to it. At Galesburg State Research Hospital, Galesburg, Ill. and Elgin State Hospital, Elgin, Ill. joint pilot studies have recently been completed on two compounds both phenothiazine derivatives, trifluprom azine and trifluoperazine. In both compounds the chlorine atom of the phenothiazine nucleus has been replaced by carbon trifluoride (CF_3). This differentiates trifluprom azine from chlorpromazine (Thorazine) and trifluoperazine from prochlorperazine (Compazine).

[1] Galesburg State Research Hosp., Galesburg, Ill.

[2] Elgin State Hosp., Elgin, Ill.

Animal studies at Galesburg State Research Hospital had proven these two compounds to be both active and safe. The compounds were then given to 47 psychotic and 22 feeble-minded patients. The majority of the 47 psychotics were schizophrenics with long histories of hospitalization; the 22 feeble-minded patients had histories of prenatal, birth or infancy brain damage.

Elgin State Hospital joined the study with 24 acutely disturbed, recently admitted female patients showing agitation, combativeness and noisiness immediately prior to being placed on the drugs.

In the study the double-blind method was followed according to the following schedule of 4 periods of 6 weeks each: 1. trifluoperazine (10-120 mg. daily); 2. placebo; 3. triflupromazine (100-800 mg. daily); 4. placebo. Daily examinations were made by individual physicians and evaluations were made every 3 weeks by the research staff.

Triflupromazine appears to be an active compound bringing about tranquilization and other improvements of psychiatric symptoms similar to those obtained with chlorpromazine but faster; the effective daily dosage ranged between 200-600 mg. This drug seems to be the most active phenothiazine derivative; its effective daily dosage oscillated between 20-60 mg. to produce tranquilization and various improvements of psychotic symptoms.

The two drugs were not without side effects. Triflupromazine had a slight hypotensive effect perhaps less intense than that of chlorpromazine, while trifluoperazine did not produce a consistent change of blood pressure in the majority of patients. Both drugs produced mild parkinson-like symptoms in several instances. Lactation appeared with both drugs in the female patients of the younger age group. Unsightly weight gains were absent in all cases with both drugs. No case of jaundice was observed with either drug. The appearance of convulsive seizures in the feeble-minded patients with brain damage was not observed with the administration of either drug.

In the Elgin State Hospital group of recently admitted patients social recoveries resulting in discharges occurred in 6 of 12 patients treated with triflupromazine and in 7 of 12 patients treated with trifluoperazine. Continued treatment with each drug is strongly indicated after discharge.

TRINURIDE H: A NEW ANTIEPILEPTIC DRUG

Report on a Pilot Clinical Trial

STEPHEN KRAUSS, M.D.[1]

Considering that just 100 years ago the bromides were introduced into the treatment of epilepsy in England, the drug therapy of epilepsy has been remarkably rich in developments. The most important of these was the introduction of the barbiturates which, but for the search for more potent drugs and those specially suited for the subgroups of epilepsy, could still reign undisputed. A wide range of more recent drugs (hydantoins, acylureas, diones, primidon or mysoline) have tried to cover those requirements. Furthermore, focal epilepsies have now become accessible to neurosurgery guided by electroencephalography. However, the search continues for that "ideal" drug which would combine absence of toxicity, absence of soporific and other side-effects and general applicability to all forms of epilepsy.

In 1952 Frommel and co-workers in Geneva brought out a new acylurea-derivative which appears to be of great promise. "Phenuron" is already well known in the U.S.A., but considerably toxic. The new substance, phenylethylacetylurea, was proved, in animal experiments, to have only a small fraction of the toxicity of Phenuron and still to have a high anticonvulsive property when used with electroplexy. The new compound "Trinuride H," subsequently introduced, contains in one tablet phenylethylacetylurea 0.200 g, diphenylhydantoin 0.040 g and phenobarbital 0.015 g (the first small admixture effecting potentiation, the second combating initial excitation). Clinical workers in Switzerland, Belgium, Italy and Portugal have already reported very encouraging results with Trinuride H (the main authors being

[1] Fair Mile Hosp., Wallingford, Berks., England.

Sorel and Furtado). The present report is the first one in the English literature.

Twelve idiopathic grand mal patients (males aged 24 to 62) were subjected to a trial lasting 8 months. By gradual replacement of the preceding medication (phenobarbitone plus epanutin) which is of great importance, the standard dosage of 4 tablets daily (2 mane plus 2 nocte) was reached within 4 weeks. Assessment of the results was based on the comparison between the average monthly number of fits during trial with the corresponding fit number during the 8 months preceding the trial. In cases of "marked improvement" (4) this monthly fit number was reduced from a multiple of 1 to 1 only or nil; 3 other cases were classified as "improved," 3 as "not improved" and 2 did not complete the trial. In some cases an occasional shift from grand mal to petit mal was observed. Regular examinations of the urine and bloodcounts which were carried out did not reveal any adverse effect. In our material consisting of chronic psychotic and mentally defective epileptics periods of confusion and irritability did occur in the first few months, but subsided. From regular entries of the nursing staff on the behavioral aspect it became evident that in the later stages both individual and group manageability improved.

Stress must be laid on the complete absence, with Trinuride H medication, of drowsiness so often observed with other antiepileptic drugs. This seems to hold promise in respect of the ambulant and intelligent epileptic, numbering thousands, whose employability is of great economic importance.

THE EFFECT OF CHLORPROMAZINE IN REDUCING THE RELAPSE RATE IN 716 RELEASED PATIENTS: STUDY 3

BENJAMIN POLLACK, M. D.[1]

In previous publications the writer has reported the results of adding chlorpromazine to the treatment program of patients released from the Rochester State Hospital. The first study (1, 2) indicated that this drug appeared to have a marked effect in reducing the expected relapse rate. A subsequent report (3) on a second series of 250 patients seemed to confirm this original impression.

The present study consists of 316 patients who at one time had been admitted to the Rochester State Hospital and subsequently released. This is part of a cooperative study which was made with several other selected hospitals in New York and other states. The total study will be reported at a later date. We have now treated with chlorpromazine approximately 5,000 patients, and this continues to be the major drug used in our psychopharmacotherapeutic treatments.

This series of 316 released patients brings to a total of 716 the number of patients followed by this investigator to determine the effect of chlorpromazine upon the relapse rate. These 316 patients had received chlorpromazine in the hospital and were subsequently released. An attempt was made to continue all patients upon this medication, but, as can be noted from table one, only 133 continued to take their medication regularly during the total observation period. The series includes all patients who had received chlorpromazine in the hospital and who were released between May 1, 1956, and September 30, 1956. No other selection was made. Where possible an attempt was made to have the patient continue to take the medication regularly, but it is difficult to have patients take medication when they feel well.

In this study special charts were evolved and a definite and consistent pattern of reporting was instituted. Each patient, where possible, was carefully and regularly followed during the period of study from May 1, 1956, to May 1, 1957. Thus all patients were followed for at least 6 months and others for a period of one year. Patients were seen regularly in the outpatient clinic and also at their homes by social workers. Because most of the patients admitted to the Rochester State Hospital come from an area fairly adjacent to Rochester, it was possible to interview such patients frequently. Of the entire group of 316 patients the treat-

[1] 1920 South Ave., Rochester, N. Y.

TABLE 1

RELEASES MAY 1—SEPTEMBER 30, 1956 OF 316 HOSPITAL CHLORPROMAZINE TREATED PATIENTS AS OF MAY 1, 1957

Status—on return or last survey		Total returns	Percentage of total releases	Returns May 1, 1957 still in hospital
On regular medication	133	23	7	19 (6%)
No medication, medication unknown or irregular medication	183	79	25	41 (13%)
Totals	316	102	32	60 (19%)

ment status of only 9 at the termination of this study could not be accurately ascertained.

Table 1 shows that there was a marked difference in the relapse rate of patients who had continued regular treatment as compared with those who had not. This group of 133 patients had a relapse rate of only 7% of the total series. When the relapsed patients in this group were retreated with chlorpromazine, four of the 23 patients were shortly released from the hospital. Of the 183 patients who had received no medication or intermittent or irregular medication, 79, or 25% of the 316 patients, returned to the hospital. When the 79 patients were retreated with chlorpromazine in the hospital, 38 patients left shortly. Thus, it could very well be suspected that many of the patients who had discontinued treatment might not have had to return had they followed instructions and continued their medication. In both groups regular psychotherapy and guidance by our social service staff were available to all patients. There appeared to be no essential difference in the environmental factors.

Table 2 indicated 70% of the released patients had been in the hospital 2 years or less and almost 14% had been in the hospital for a period of 5 years or more. Surprisingly, 9% of this group consisted of patients who

TABLE 2

YEAR OF ADMISSION OF ABOVE CONVALESCENT CARE PATIENTS

1956	50%
1955	20%
1954	9%
1953	7%
1952	2.5%
1951	2.5%
1950-1930	9%

TABLE 3

DIAGNOSES OF ALL 316 PATIENTS IN SURVEY

Diagnoses	Total	Out of hospital	Returned to hospital as of May 24, 1957
Dementia praecox	154	124	30
Involutional psychosis, melancholia	26	21	5
Involutional psychosis, paranoid	17	16	1
Psychosis with cerebral arteriosclerosis	30	23	7
Senile psychosis	4	3	1
Manic-depressive psychosis, manic	12	8	4
Manic-depressive psychosis, depressive	8	5	3
Psychosis with psychopathic personality	8	6	2
Psychoneurosis	18	18	0
Psychosis with convulsive disorder	7	6	1
Psychosis due to trauma	1	1	0
Psychosis due to alcohol	11	10	1
Psychosis with mental deficiency	7	7	0
Behavior disorder	7	6	1
Psychosis due to drugs	4	4	0
Psychosis with epidemic encephalitis	1	1	0
Undiagnosed	1	1	0
Totals	316	260	56

had been in the hospital for 6 to 25 years and had been given various other forms of treatment without success. This table would thus indicate the effectiveness of chlorpromazine in helping chronic mental patients to such a degree that they can be cared for fairly comfortably outside of the hospital without much danger to themselves or others.

It can be seen from the diagnostic table 3 that almost half of the released patients consisted of schizophrenics and the others of various diagnostic categories. Those patients who had as part of their psychosis paranoid ideation or disturbed conduct seemed to do very well. These symptoms were kept under good control. It would appear from our findings that regular medication is much superior to intermittent medication given according to acute need.

This study confirms the previous findings that the addition of chlorpromazine to other therapies given to released state hospital patients is markedly effective in reducing the relapse rate to ¼ to ⅓ of the usual or expected rate. In the total series of 716 patients the relapse rate was approximately 7% in the drug treated group. Psychopharmacotherapy, therefore, appears to be consistently effective in reducing the relapse rate as noted in the three studies so far reported. It must be stressed that drug therapy by itself is not nearly as effective as when combined with all the other psychiatric tools available.

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CHEMOTHERAPEUTIC TRIALS IN PSYCHOSIS: III

2-Brom-d-Lysergic Acid Diethylamide (BOL 148)

WM. J. TURNER, M.D., AND SIDNEY MERLIS, M.D.[1]

The singular properties of lysergic acid diethylamide (LSD) have led to much speculation regarding a chemical pathogenesis of schizophrenia(1, 2, 3, 4). There is a growing body of evidence that the slightest alteration of the amide group in LSD lowers or abolishes the psychic action of the molecule(5, 6, 7, 8). *Pari passu* with this there is also a decrease in the anti-serotonin activity as measured by several *in vitro* tests (9, 10). A striking exception is 2-brom-LSD (BOL 148)[2] which equals LSD in anti-serotonin activity *in vitro*, but of which the only psychic action appears to be mildly sedating (10, 11). It should be observed that the extreme specificity of LSD, possibly no more than 1 microgram being required in the central nervous system to produce marked alterations of psychic function (12), points to the requirement that more than one, and possibly as many as three, binding sites be occupied by the molecule simultaneously or in strict stepwise manner on one or more enzyme molecules. This being so, it would appear that the 2-brom derivative is no longer able to occupy all the sites fitted by LSD.

Recently Ginzel and Mayer-Gross(13) reported that BOL 148 administration prior to LSD inhibited the LSD effect in man. Conceivably some of the schizophrenic syndromes might in some instances be secondary to a metabolic occurrence related to production and fixation within the central nervous system of increased amounts of serotonin(2, 3), the fixation occurring on those binding sites available also to LSD. If so, then the administration of BOL 148, which might attach only to certain sites, might release the bound serotonin without production of LSD effect, and lead either to exacerbation or relief of the symptoms attributable to the serotonin fixation.

To test this, we administered to 6 chronic schizophrenic subjects BOL 148 at the rate of 1 mg. t.i.d. for 2 weeks; 2 of these and a third subject then received 5 mg. q.i.d. for 3 days.

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[2] This was prepared by Sandoz Pharmaceuticals of Basel. We are indebted to Dr. R. Bircher of Sandoz Pharmaceuticals for generous supplies of BOL 148.

The patients had all been on our Research Ward for some time and had been involved in considerable study prior to the introduction of BOL 148. Their ways of responding to personnel, to one another, their daily variations, and the finer nuances of their psychotic ways of life were well known. For instance, two patients had double orientation and consciousness; one of these was aware of her double "life" and in the lucid phase, which was one of friendly, ready cooperation, coherence and honesty, could report on the other phase as one reports a dream.

In the testing situation the previously existing attitudes were maintained, and the same types and intensity of contacts were continued. Since the patients had been on medication trials previously, though not immediately preceding the BOL 148, it was natural to continue asking relevant questions.

Aside from the comments by two patients while on the lower dosage that they felt more refreshed by sleep, and food tasted better, there was no evidence of any psychic alterations in any of our subjects. It is particularly noted that the patient with double consciousness described above was unable to note any change in either of her phases of consciousness. That this was not due to the choice of fixed, unresponsive patients, was indicated by the fact that one of these patients later responded very well in milieu and psychotherapy, while two others reacted some weeks later to 50 microgram doses of LSD, just as other psychotic subjects have done in our experience(14).

We have been exploring chemical theories of schizophrenogenesis for some years. We recognize that the present study is indecisive for any of these theories. It is, however, a weight in the balance, not in favor of any simple, direct, causal relationship between serotonin metabolism and schizophrenia. Beyond this we do not feel justified in going.

SUMMARY

BOL 148 administered to chronic schizophrenics, 1 mg. t.i.d. to 6 subjects for 2 weeks, or 5 mg. q.i.d. for 3 days to 3 subjects, had no evident effect on their psychoses.

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ADRENOCHROME IN BLOOD PLASMA

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The striking psychotomimetic effect of microgram quantities of lysergic acid diethylamide and the similarity of the induced experience to some clinical manifestations of schizophrenia has stimulated interest in the mechanism of LSD-25 activity. Physiological properties recently discovered for LSD-25 suggest at least 3 possible mechanisms of activity—(A) an interference centrally with serotonin as a neurohormone(1), (B) interference with parasympathetic activity by inhibiting choline esterases(2), and (C) some disturbances in adrenaline metabolism(3).

The last two mechanisms and especially the third appears to account most satisfactorily

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for the clinical and physiological changes. Thus LSD-25 produces increases in the secretion of adrenaline(4), an increase in cellular activity of the adrenal medulla(5) and an increase in the concentration in plasma of adrenaline oxidases(6, 7).

In our laboratory LSD-25 given to 5 normal subjects (100 micrograms by mouth) and three sober alcoholics (200 to 300 micrograms) markedly increased adrenochrome levels in plasma as shown in the following table.

TABLE SHOWING ADRENOCHROME LEVELS (μg/LITER) IN PLASMA AFTER ORAL ADMINISTRATION OF LSD-25

Time	0	2	4	6	24	48
Adrenochrome (micrograms/liter) ...	50	164	157	103	81	54

The height of the adrenochrome levels at 2 to 4 hours after administration of LSD-25 coincides well with the height in intensity of the clinical response. Perceptual distortions are maximal during this period. Adrenochrome levels are normal after 48 hours.

The threefold increase in adrenochrome levels from normal values(8) in plasma using an accurate biochemical assay(9) as well as the evidence for the psychotomimetic effects of adrenochrome(10) and adrenolutin(11) strongly suggests that one of the basic mechanisms of LSD-25 activity is the production of adrenochrome which is one of the mediators of LSD-25 activity. Another is the increase in parasympathetic tone or acetylcholine activity(12) as in mechanism B. A comprehensive report will be submitted.

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HISTORICAL NOTES

THEODORIC ROMEYN BECK, M. D.

ERIC T. CARLSON, M. D.[1]

As the name of Theodoric Romeyn Beck appears in each issue of the *American Journal of Psychiatry*, one may easily ascertain that he was the second editor of this venerable periodical. It seems therefore desirable to place him into perspective in the history of early American psychiatry.

Beck was born of English and Dutch ancestry in Schenectady, New York, on August 11, 1791, the eldest of 5 sons(1, 2, 3). Two of his brothers (John Brodhead and Lewis C.) also went into medicine and gained fame through their activities as professors at the College of Physicians and Surgeons and the Albany Medical College respectively. Theodoric received his grammar school education from his maternal grandfather before enrolling in Union College (Schenectady), from which he graduated in 1807. He immediately commenced his medical education as an apprentice to Drs. Low and McClelland in Albany, later shifting to the tutelage of Dr. David Hosack in New York City. His attendance at lectures at the newly founded College of Physicians and Surgeons in the City of New York led to the Doctor of Medicine degree at its first graduation in May 1811. His doctoral thesis, *On Insanity*(4), was published a year before Benjamin Rush's *Medical Inquiries and Observations Upon the Diseases of the Mind*. It is probable that Beck saw some psychiatric patients with Dr. Hosack at the New York Hospital and that herein lay the stimulus that would keep him on the borderlines of American psychiatry for the remainder of his life. This dissertation, based primarily on a survey of the literature, contains nothing original but does give an excellent condensed survey of the psychiatric thought of the day. Beck leans heavily on the Scotch philosophers, Reid and Stewart, for his basic psychology while Arnold, Chrichton, Pinel, and Rush all influence his psychiatric thinking. He discusses history, diagnosis, causes, prognosis, treatment and results. His concluding brief mention of medical jurisprudence gives a clue to another of his interests and the one which would bring him the greatest notice and reputation.

He returned to Albany to begin his practice of medicine but other interests were soon making increasing inroads on his time and energy. After joining the Society for the Promotion of Useful Arts in 1812, his chairmanship of the committee on New York minerals lead him to lecture and write on this subject and to be the inspirational force behind a subsequent state geological survey. He recognized by 1814 that his wide scientific interests were conflicting with his desire to give time to his patients. However, 3 years later he gave up his practice when offered the position of principal of the Albany Academy, a post he held until 1848, only to become the president of the board of trustees. Those years were busy ones for Beck as he belonged to nearly 30 organizations and was active in many of these. His educational efforts were furthered by his appointment in 1841 as secretary of the New York Board of Regents wherein he not only influenced the educational policies of the state, but was instrumental in the growth of the New York State Library.

Although he had relinquished his practice of medicine to turn to diverse educational activities, he continued to contribute to his chosen profession in various ways. He taught through his appointments in 1815 as Professor of the Institute of Medicine and Lecturer on Medical Jurisprudence (later promoted to Professor in 1826) at the College of Physicians and Surgeons for the Western District at Fairfield, New York. He transferred from the first post to that of Materia Medica in 1836 and when the college finally closed in 1840, took the same position at the Albany Medical College until he was made Emeritus Professor in 1854. He was

[1] From the New York Hospital and the Department of Psychiatry, Cornell University Medical College, New York.

active in the Medical Society of the State of New York, serving both on committees and 3 consecutive terms as president starting in 1829.

Beck was to achieve his greatest fame in the field of medical jurisprudence. As he was planning a book on this topic as early as 1813, he gathered material over the years, finally writing much of the text at the bedside of his slowly dying wife to whom he was very devoted. Her death and the publication of the *Elements of Medical Jurisprudence* both occurred in 1823(5). His two-volume opus, which included a chapter on mental alienation, soon became a standard work. He lived to see it go through 10 editions; 4 in the United States, 4 in England and one each in Germany and Sweden. It continued in publication after his death with 2 more editions appearing in the next 10 years.

One can find a constant thread of involvement with psychiatry throughout his life, from his graduation thesis through a chapter in his work on medical jurisprudence followed by a review article in 1828 on "The Statistical Notices of Some of the Lunatic Asylums in the United States"(6). This background led to his increased participation in American psychiatry through his appointment in April 1842 to the board of managers of the then still unbuilt New York State Lunatic Asylum at Utica, a position he would continue to hold until his death. The board first offered the position of superintendent to Samuel B. Woodward, after whose refusal Amariah Brigham was appointed. Brigham and Beck must have developed a close relationship because Brigham had shared his plans to establish the *American Journal of Insanity* only with Beck and Pliny Earle(7). Beck encouraged Brigham in this enterprise and contributed translations of French articles, book reviews and reviews of annual hospital reports but essentially nothing original. Brigham in his failing health had suggested that Pliny Earle assume the editorship, but nothing came of it and with Brigham's death, the board of managers took over the responsibility of publishing the JOURNAL. They selected Beck as editor. He accepted with reluctance and with the hope that he would soon be relieved of what he considered to be a temporary appointment. However he continued as editor for 4 years when he finally resigned under the pressure of advancing years, failing health and other responsibilities(8). His interim editorship was without any change in policy or any significant new contributions, but he did serve to keep the JOURNAL alive and its next editor, John P. Gray, was to have a profound influence on American psychiatry for the next 30 years.

Beck's contributions to the diverse fields of education, medical jurisprudence and psychiatry had been made possible by an excellent intelligence, a far roaming curiosity associated with a retentive memory and great energy, coupled with a need never to waste a moment, so that his day was systematically and inalterably organized. To strangers he often appeared reserved and unsocial, but his friends knew him as unrestrained and affable with a rich humor. He was modest, liberal and with a high sense of integrity and independence. He was paternalistic to his parents and brothers, all of whom he outlived. He was a big man (weighing about 210 lbs.) but progressively lost weight after February 1855 under the stress of an illness which puzzled his attending doctors, and which reduced him to an almost unrecognizable shell of his former self before he died on November 19 at the age of 64. So died a man who played a tangential role, but who nevertheless, left his mark on the history of early American psychiatry.

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CORRESPONDENCE

THE MENTAL HEALTH BOOK REVIEW INDEX, AN ANSWER TO DR. KAHN'S QUERY

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: I am sure Dr. Eugen Kahn was not proposing censorship when he wrote in the JOURNAL ("Information Values," October 1957): "What a blessing it would be if the publication of books which are neither bona fide literary works nor scientific treatises were stopped!" But the JOURNAL is widely read as the representative voice of psychiatry, and such a statement, even if meant facetiously, can easily convey to the general public that psychiatrists want to interfere with freedom of expression when it hurts them.

Censorship is not the method, in science, of weeding out unconfirmed observations and baseless opinions. The scientific community relies on the conscience of its investigators to uphold standards for published material (as Dr. Kahn intimates), on its journal editors to require high standards of keen observation, logical reasoning and fair judgment in contributions, and on the evaluation of discerning minds among all scientists and practitioners to recognize worthwhile contributions. There is a competition of ideas, the scientific community sitting as judge.

The system of book reviewing in the journals traditionally has been an opportunity for books to be evaluated authoritatively, without bias or parochialism, so that poor ones would not have a chance, and the influence of publishers and book dealers put in its place. Several judgments by specialists are necessary for a book to be reviewed. The editor must decide a book warrants review and select an appropriate reviewer, who then decides once more if the book merits review.

Hundreds of psychiatrists are actually busy doing what Dr. Kahn is asking for. The *American Journal of Psychiatry* reviews 100 to 120 books each year; add the similar efforts made in numerous other psychiatric journals in this country and abroad. The difficulty is that the total result is not put in evidence and even subscribers to a large number of psychiatric journals can hardly form a picture of the books most widely and favorably reviewed and the insignificant place taken by the books judged as poor—so that the trouble which bothers Dr. Kahn is taken care of without censorship or interference at the source.

Fortunately, there is now a publication which performs such a service for the major journals in the field of mental health in the English language. The *Mental Health Book Review Index,* now in its third year, semiannually lists references to signed reviews of new books in this field which appeared in three or more of 72 journals in the mental health disciplines (psychiatry, psychoanalysis, etc.). (The listing is intended for the purpose of orientation only, but nevertheless provides the only extant *operational* delimiting of books in the literature of the mental health disciplines.)

Since the names of reviewers are given with each reference, a psychiatrist can easily expand his assessment of a book by a study of all the reviews listed, from three to twenty in some instances, and can then speak with the authority of the profession. The *Index,* through the efforts of a group of librarians, holds up a mirror to what the specialist-reviewers are doing already, and makes it easier for all psychiatrists to benefit from the evalutions of their selected colleagues. (The *Index* costs $1 a year from M. E. Tresselt, New York University, New York 3, N. Y.)

In this constructive way, inferior publications are taken care of—by deserved neglect.

LOUIS PAUL, M. D.,
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REPLY TO THE FOREGOING

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: Thanking you for sending me the "Answer" to my "Query" which Dr. Louis Paul has submitted to you, I wonder: Does this answer come from the *Mental Health Book Review Index* or does it come from Dr. Louis Paul?

The writer seems to agree with me which is unmistakably expressed in the phrase "to filter out the worthwhile contributions from the stream of print."

Would it be possible to ask the writer to cut his remarks short? I deem it superfluous to increase the stream of print in this manner.

EUGEN KAHN, M. D.,
Baylor University,
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OSCAR WILDE

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: In your August issue, Dr. Hoffer ventilated the hypothesis—so frequently quoted—that Oscar Wilde was a syphilitic. If by that term it is implied that a luetic infection had been contracted early in adult life, then one can but agree that the contention is by no means unlikely. At the same time one must admit that the evidence for such a view is most meagre, and it mainly stems from Paul Wiegler's *Genius in Love and Death.* (1929.)

But if Dr. Hoffer's thesis is that Wilde succumbed to a cerebral syphilis, then the evidence becomes even more sketchy. I know of no real historical support for the statement that . . . "the doctor who attended him in his last days stated that his patient displayed all the symptoms of a chronic syphilitic."

A scrutiny of the available information surrounding Wilde's last illness brings to light an intractable rash; giddiness; persistent headaches; one-sided deafness; an otological operation of some sort; and a brief terminal state of coma. Wilde's own ideas as to the nature of his malady oscillated between mussel poisoning, gout, and neurasthenia. It was the notorious Frank Harris who hinted at a "dreadful disease" aggravated by over-indulgence in wine and spirits; but what Frank Harris writes never is and never has been acceptable evidence.

If Dr. Hoffer implies that Oscar Wilde's fatal illness was in the nature of a general paresis then he is on insecure grounds. Wilde always was deficient in an apt sense of occasion, and his "woeful judgement" was a lifelong trait—or at least one which he was liable to display ever since his undergraduate days. The conclusion that he deteriorated in his personality in his last years is ineluctable: but there is no hint of dementia in his correspondence, whether it be judged by its content or by the penmanship. Wilde's letter penned to Robert Ross not long before his death was to the effect. . . . "I am very ill, and the doctor is making all kinds of experiments. My throat is like a lime kiln, my brain a furnace and my nerves a coil of angry adders." Clearly Wilde had not lost his mastery over the Queen's English. . . .

No: we must admit that the nature of Wilde's last illness is still a matter of guesswork. He *might* have been infected with a venereal disease in his youth; he *might* possibly have developed a meningo-vascular cerebral syphilis or a luetic hydrocephalus. But that he was a victim of dementia paralytica is a most insecure contention (see Critchley, *Medical History,* 1: No. 3, July 1957).

There are other diagnostic possibilities too . . . carcinomatosis, hepatic cirrhosis, hypertension. Even more plausible is the suspicion of intracranial complication of a chronic suppurative otitis media. (See T. Cawthorne, *King's College Hospital Gazette,* 1955, *34,* 251-263).

Dr. Hoffer and I would doubtless agree that had penicillin been available to the medical profession in 1900, Oscar Wilde's life might have been saved.

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REPLY TO THE FOREGOING

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: While I must agree with Dr. Macdonald Critchley regarding organic causes of death of Mr. Wilde, this was not the point of my recent letter to you. I was referring to the possibility that Wilde's homosexuality may have had some relationship to a chronic syphilitic process. I was not particularly interested in the causes of his death and certainly they may have been as Dr. Critchley suggested. The statement attributed to his doctor was taken directly from H. Montgomery Hyde's book *The Three Trials of Oscar Wilde.* It ought not to be too difficult to determine whether or not his doctor made this particular statement.

I agree with Dr. Critchley that had Mr. Wilde had access to penicillin, his death may have been quite different, and I also suggest the possibility that his life and the development of homosexuality may have also been different.

A. HOFFER, M. D.,
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IDEA AND ACT

Editor, THE AMERICAN JOURNAL OF PSYCHIATRY:

SIR: In the October 1957 number of the JOURNAL an editorial on page 374, "Idea and Act" might justify some questions.

The author of the article complains of having difficulties in grasping the argument of the Supreme Court (excepting dissenting Justice Clark's) on the basis of which the sentence of 14 men, convicted under the Smith Act was set aside. The interpretation of the Smith Act was "an extraordinary feat of psychological acrobatics," he feels. "This feat consisted of a gossamer-fine distinction between 'advocacy of abstract doctrine' and 'advocacy directed at promoting unlawful action.' According to this dialectic, 'teaching of forcible overthrow as an abstract principle, divorced from any effort to instigate action to that end' is quite permissible, and presumably the High Court is prepared to defend such teaching."

The implication of the article seems to be that the Justices are either ignoramuses (the author recites to the reader what he (the author) learned in college about the relationship between thought and action) or old fools or, considering the author's choice of words ("extraordinary feat of psychological acrobatics"), that they may have had some sort of ulterior motive. (Perhaps communist inspired?)

Whatever the case may be it would suggest a sad state of affairs.

There is, of course, an alternative possibility, namely, that the author of the article really has not grasped the psychological distinctions that the Justices have made and the important issues that may hinge on such distinctions. For instance, it has been suggested lately that the coarseness of the distinctions made in the heydays of the late Senator McCarthy may have seriously retarded our research and defense program, and thus contributed to the melancholy sight of the sputnik. It is also possible that the acuity of such distinctions and the seriousness with which they are probed by discriminatory minds may help to decide the degree of freedom or regimentation of thought and speech for future generations.

Regardless of differences of opinions concerning the decision of the Supreme Court, it would seem incumbent upon the leading organ of American psychiatry, when it feels itself called upon to comment upon the events of the nation, that show that it is capable of distinguishing between issues that can be given a frivolous toss and those that should be handled with circumspection in accord with their portentousness. Furthermore, in cases of controversial matters of any significance, one would expect that editorial comments should reflect editorial deliberations and not be a one man's "show."

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(Ed. Note: Editorial comments in the JOURNAL derive from three sources: guest comments are signed in full; comments by associate editors are signed by initials; for unsigned comments the editor is responsible.)

COMMENT

EQUUS ET MACHINA

During the last thirty years Horsely Gantt of Johns Hopkins and Howard Liddell of Cornell have made a great contribution to American psychiatry by studying the behavior of animals in the Pavlovian tradition, and especially by correcting, expanding and re-interpreting Pavlov's findings. A recent monograph by Liddell[1] gives us a survey of this work and points out the many significant relationships to medicine and psychiatry. The book has much to do with conditioned reflexes and, therefore, with an important aspect of training and learning. One chapter is on the training of horses. This raises, in anyone who lived in this world before 1900, a poignant nostalgia; not just the general senile longing for the "good old days," but the realization of a specific loss.

Before the beginning of this century man had for thousands of years been intimately associated with horses. They were his chief means of transportation. Whether one were "horsey" or not, he had to be interested in them because they took him to the depot and back, ploughed his fields and helped to teach his children how to be gentle, patient and understanding of moods and feelings. Horses certainly gave to man a great experience in training, control and self-control.

There was, of course, that short and shameful interlude in our West, known as the Cowboy Epoch, when brutal men beat their broncos into quick submission and thereby developed beautiful buckers. But that is all passed and only remains in our cinema sadisms in which we still are expected to admire the tough guys who, too cowardly to use their fists, shot each other because of anxiety and whiskey.

The close association of children with animals used to be almost universal. It taught them much about instincts, gave a respect for emotions and emphasized the necessity of keeping one's eyes and ears open. Sexual behavior was learned as part of the general behavior of all mammals and birds. No observant children could believe that masturbation, homosexuality or polygamy was wholly "unnatural" or entirely "immoral" no matter how much the parents tried to drum bookish morals into them.

Although parental and sibling relationships were certainly as important then as now, association with animals added a valuable experience. When a child had a puppy, colt or kid to handle, he soon learned that an affectionate relationship was essential, and that one cannot hurry training without disastrous results on future behavior. Translated into Liddell's terms, this means that the social environment must be controlled, emotions must be considered and that conditioned reflexes are formed best at an optimum speed. If too slow, they are lost, forgotten; if too fast, they cause behavior that can well be compared to the neuroses of man.

In a machine age there is no substitute for this experience with horses. Some wealthy persons may raise them for sport; other animals may be cultivated as pets; but the horse as a part of our culture is gone. We shall have to make up for the loss by a better psychological understanding of learning and discipline.

S. C.

[1] Liddell, H. S.: Emotional Hazards in Animals and Man. Springfield, Ill.: Charles C Thomas, 1956.

PRESIDENT'S PAGE

An extremely unpleasant responsibility of the President of The American Psychiatric Association is to announce the resignation of Dr. Daniel Blain as Medical Director, to take effect on September 1, 1958. Dr. Blain presented his resignation to the Council at its November meeting. The Council accepted the resignation with great regret. The general feeling was expressed that the Association owes such a deep debt of gratitude to Dr. Blain that it could not pressure him to remain when it was his desire to be freed of many of the responsibilities that the job required.

This is not the time nor place to give an account of the contributions that he has made to our organization. However, it may be pertinent to mention the rapid growth of the organization in these last 10 years. The number of members and fellows has more than doubled; the activities have extended into many areas. There have been developed new services, great extension of committee activities and a marked increase in the personnel serving the Association. For example, there are now some 50 committees and boards working on various aspects of mental health programs. There are a number of projects being supported by grants both from the National Institute of Mental Health and Foundations. There are other activities such as the Mental Hospital Institute and publication of books and pamphlets that are self-supporting. There are others such as the Central Inspection Board which have needed support in part from the Association and in part from grants.

What I am trying to indicate is that the Association is entering the area of big business enterprise at a cost of close to a million dollars a year. This quite rapid addition of activity and responsibility has required a great deal of planning and much executive and administrative organization. The officers, the Council and its Executive Committee, as well as certain other committees such as the Long Term Planning Commission have devoted much time and thought to the affairs of the Association. During this period of growth and development your Medical Director has had to chart a course to direct many of the activities and to find means of financing them. This he has done exceptionally well.

I take this opportunity to call to your attention that greater and greater pressures are being put upon your officers, Council and Execuive Committee, as well as other committees. It appears that the period of expansion will continue for sometime. Undoubtedly provision will have to be made to lighten some of the burdens of the officers. With the development of divisional and research meetings, with the activities of the branch societies, the presence of the officers is in demand. Such invitations are highly flattering, and certainly to your current President it is a great pleasure and delight to attend. However, projecting in the future, it becomes apparent that future Presidents will not be able to accept but a fraction of the invitations. Therefore there have been created offices for two Vice-Presidents, and the first election for these Vice-Presidents will take place this year. They undoubtedly will be of great assistance to the future Presidents and serve an important function for the Association.

HARRY C. SOLOMON

OFFICIAL NOTICE

RESOLUTION ON RELATIONS OF MEDICINE AND PSYCHOLOGY *

Approved by the Board of Trustees of the American Medical Association, The Council of The American Psychiatric Association, and the Executive Council of the American Psychoanalytic Association.

For centuries the Western world has placed on the medical profession responsibility for the diagnosis and treatment of illness. Medical practice acts have been designed to protect the public from unqualified practitioners and to define the special responsibilities assumed by those who practice the healing art, for much harm may be done by unqualified persons, however good their intentions may be. To do justice to the patient requires the capacity to make a diagnosis and to prescribe appropriate treatment. Diagnosis often requires the ability to compare and contrast various diseases and disorders that have similar symptoms but different causes. Diagnosis is a continuing process, for the character of the illness changes with its treatment or with the passage of time, and that treatment which is appropriate may change accordingly.

Recognized medical training today involves, as a minimum, graduation from an approved medical school and internship in a hospital. Most physicians today receive additional medical training, and specialization requires still further training.

Psychiatry is the medical specialty concerned with illness that has chiefly mental symptoms. The psychiatrist is also concerned with mental causes of physical illness, for we have come to recognize that physical symptoms may have mental causes just as mental symptoms may have physical causes. The psychiatrist, with or without consultation with other physicians, must select from the many different methods of treatment at his disposal those methods that he considers appropriate to the particular patient. His treatment may be medicinal or surgical, physical (as electroshock) or psychological. The systematic application of the methods of psychological medicine to the treatment of illness, particularly as these methods involve gaining an understanding of the emotional state of the patient and aiding him to understand himself, is called psychotherapy. This special form of medical treatment may be highly developed, but it remains simply one of the possible methods of treatment to be selected for use acording to medical criteria for use when it is indicated. Psychotherapy is a form of medical treatment and does not form the basis for a separate profession.

Other professional groups such as psychologists, teachers, ministers, lawyers, social workers, and vocational counselors, of course, use psychological understanding in carrying out their professional functions. Members of these professional groups are not thereby practicing medicine. The application of psychological methods to the treatment of illness is a medical function. Any physician may utilize the skills of others in his professional work, but he remains responsible, legally and morally, for the diagnosis and for the treatment of his patient.

The medical profession fully endorses the appropriate utilization of the skills of psychologists, social workers, and other professional personnel in contributing roles in settings directly supervised by physicians. It further recognizes that these professions are entirely independent and autonomous when medical questions are not involved; but when members of these professions contribute to the diagnosis and treatment of illness, their professional contributions must be coordinated under medical responsibility.

* This Resolution has been previously published in the official Journals of the three named Associations. It was also distributed in the APA Mail Pouch in October 1954. It is redistributed at this time (December, 1957) at the direction of the Council of The American Psychiatric Association.

NEWS AND NOTES

Neuro-Psychopharmacology.—Investigators from 13 countries founded an International Collegium for Neuro-Psychopharmacology in Zurich on September 3, 1957, during the Second International Congress for Psychiatry, with the purpose of promoting research and collaboration in the experimental and clinical fields. Work in these areas has produced remarkable changes in current neuro-psychiatric therapy, and particular attention will be given to the social implications. It is planned to organize special symposia and general meetings on the subjects of methodology and analysis of the pharmacologic and therapeutic results with psychotropic drugs under normal and pathologic conditions.

Professor E. Rothlin (Switzerland) was elected president with the executive committee consisting of Prof. E. Trabucchi (Italy), first vice-president; Dr. H. C. B. Denber (U.S.A.) and Dr. C. Radouco-Thomas (Switzerland), secretaries; Dr. W. A. Stoll (Switzerland), treasurer; Dr. P. Deniker (France) and Dr. P. Bradley (Great Britain), first councillors.

The next international meeting will be held in Rome September 9-12, 1958. Those interested in presenting papers are requested to send 250-word abstracts to Dr. Herman C. B. Denber, secretary, Manhattan State Hospital, Ward's Island, New York 35, N. Y., not later than March 1, 1958.

Dr. Meyer's Pupils and Colleagues Contribute to Burghölzli Library.—Dr. Wendell Muncie reports that in connection with the memorial service and the placing of the plaque dedicated to Dr. Meyer at the Burghölzli Hospital in Zurich this summer, 17 pupils and colleagues of Dr. Meyer responded to the committee's suggestion and sent 31 copies of books authored by them for the Burghölzli Library. In addition, there were copies of the recently published Psychobiology (Dr. Meyer's Salmon Lectures), and his *Collected Papers* in 4 volumes. One author, not having any copy of his own book, sent the Library a first edition of Benjamin Rush's text book.

Dr. Bleuler expressed his gratitude for these contributions to the Library.

Report of the Nominating Committee.—The nominating committee (Henry W. Brosin, chairman) presents the following list of candidates for election as officers of the A.P.A. for the year 1958-59:

President-elect, William Malamud, Boston, Mass.; Vice-president, David C. Wilson, Charlottesville, Va.; Vice-president, William B. Terhune, New Canaan, Conn.; Secretary, C. H. Hardin Branch, Salt Lake City, Utah; Treasurer, Robert H. Felix, Bethesda, Md.; Councillors (3 to be elected from 5 nominees), Dana Farnsworth, Cambridge, Mass., Lawrence Kolb, Jr., New York, N. Y., Robert T. Morse, Washington, D. C., Alexander Simon, San Francisco, Cal., George Tarjan, Pomona, Cal.

Alfred P. Sloan Visiting Professorship.—Dr. Karl Menninger has announced the appointment of Richard M. Hewitt, M. D., director of the Mayo Clinic's Section of Publications for 15 years, as the third Alfred P. Sloan Visiting Professor at The Menninger Foundation.

The visiting professorships were established at the Foundation by a grant from the Alfred P. Sloan Foundation with the purpose of enriching the professional education of physicians studying in the Menninger School of Psychiatry. Doctor Hewitt will concentrate on helping resident physicians develop skill in communication.

Doctor Hewitt was director of publications at the Mayo Clinic until 1949 and has since served as the Clinic's senior publications consultant and also as associate professor in the Mayo Foundation Graduate School of the University of Minnesota.

Brooklyn Psychiatric Society.—The spring meetings of the Brooklyn Psychiatric Society will be held at the Brooklyn State

Hospital, 681 Clarkson Ave., Brooklyn, N. Y., on January 16, February 20 and March 20, 1958.

The subjects of the scientific sessions which are to be held at 8:30 p.m. in the auditorium are as follows: "A Comprehensive View of the Phobias" by Nathaniel Ross, M. D.; "Investigations on Animals and Man in Relationship to a Chemical Origin of Schizophrenia" by Harold A. Abramson, M. D.; and "The Psychology of Thought Control" by Joost A. Meerloo, M. D.

For further information address: Abbott A. Lippman, M.D., sec.-treas., 929 Albemarle Road, Brooklyn 18, N. Y.

American Orthopsychiatric Association, Inc.—The Association will hold its 35th annual meeting at the Commodore and Roosevelt Hotels in New York City on March 6, 7, 8, 1958.

The Combined Book Exhibit in 1958 will be located in the foyer of the Grand Ballroom of the Commodore Hotel. It will be well staffed throughout the meeting.

In preparing your list of publications for this exhibit please keep in mind the fields of professional interest of those attending: psychiatry, psychology, social work, sociology, anthropology, education, nursing, pediatrics and public health.

The Association will be meeting jointly with the American Academy of Child Psychiatry, the American Association of Psychiatric Clinics for Children and the Mental Health Section of the American Health Association.

For information address Marion F. Langer, Ph.D., Executive Secretary, 1790 Broadway, New York 19, N. Y.

Adler Memorial Issue of Journal of Individual Psychology.—The November 1957 issue of this Journal, published semiannually by the American Society of Adlerian Psychology, Inc., celebrates the twentieth anniversary of the death of Alfred Adler. A lead article by Robert W. White discusses "Adler and the Future of Ego Psychology," and is followed by contributions from Gardner Murphy, Rudolf Dreikurs, and others.

The *Journal of Individual Psychology* is edited by H. L. Ansbacher, University of Vermont, Burlington, Vt.

Opening of the Ontario Hospital, North Bay.—The 18th mental hospital, operated by the Mental Health Division of the Ontario Department of Health, was opened on October 15, 1957, at North Bay, Ontario. The City of North Bay is known as the "Gateway to the North," and the hospital will serve the area lying east and northeast of Lake Superior. This area, which is a mining and lumbering area, has a population of almost 400,000 persons, and was formerly served by hospitals in the southern part of the Province.

The hospital units already constructed will house about 750 patients. The addition of two 150-bed pavilions, and a 250-bed medical and surgical building, will bring the total capacity to about 1,300 beds.

A nucleus of experienced staff has been recruited from other mental hospitals, and under the direction of the Superintendent, Dr. W. H. Weber, formerly Assistant Superintendent of the Ontario Hospital, Hamilton, is engaged in training new staff recruited from the area.

When the level of professional staff will permit, an out-patient service and travelling clinic will be established to serve the northeastern part of the Province which, up to the present, has had no local service except in Sudbury.

Correction.—In the article on Physiological Treatment by Dr. Joseph Wortis in the annual Review of Progress, in the January 1958 issue of the Journal, the second column 7 lines from the bottom on page 603 reads "36% of leukopenia. . . ." The line should begin ".36% of leukopenia. . . ."

Also, the danger of retinitis pigmentosa referred to by Malitz and Hoch was found with piperidinochlorphenothiazin (NP 207) and not with proclorperazine (Compazine).

BOOK REVIEWS

THE SEXUAL CRIMINAL. A Psychoanalytic Study (2nd Ed.). By *J. Paul de River, M. D.* (Springfield, Ill.: Charles C Thomas, 1956, 400 pp. 84 ill. $6.50.)

Sex crimes are a challenge to the psychiatrist. This is a field where psychiatry could contribute a great deal to the understanding, handling and prevention of human acts that plague society. The present book, however, is not a help; it is a roadblock.

It is composed of 4 parts. The first 2 consist in case histories of sadism and masochism. The third treats the psychological aspects of crime investigation. The fourth, "A Study in Crime," is made up of contributions by a prison physician, a judge, a lawyer, a police official, a district attorney and a crime writer. The book is excellently gotten out, on beautiful paper, by a well-known medical publisher, and has a full index. This is its second edition. It is intended for the layman and the professional man.

The author pleads for a "sexual psychiatry." No clear distinction is made between sexual perversions and violent sex crimes. One contributor to the last part of the book makes the falsely alarming statement that "every sexual criminal is a potential murderer." There is an introduction by a prosecuting attorney which is really a brief for the prosecution directed against the "sex pervert," who "should be regarded not as a patient but as a criminal." Homosexuals are called "degenerate(s)" and regarded as "inveterate seducer(s)." Most sex perverts are called "inferiors . . . in personality and character."

There is no evidence of scientific, clinical or psychoanalytic reasoning. A good part of the case histories is long, sometimes banal dialogue between examiner and culprit. To the normal layman this book is apt to bring confusion. For instance, it quotes from a paper this statement: "When a mother flings her arms around an infant and hugs it, there is plainly visible an intense desire of violence." For the abnormally susceptible layman the book will cause stimulation.

There are quite a few illustrations. They are largely gruesome horror pictures of unfortunate victims. They are sensational, unenlightening, and out of place outside a police crime laboratory.

Why the book is called "a psychoanalytic study" is hard to see. An "11 year old female sadist" is described as "showing the prevalent Electra, Cain and destruction complexes." Among other misleading statements is this, that "full lips and dreamy eyes (are) characteristic of the sexual criminal." The author's attitude is indicated by this sentence: "Let us remember that although there may be other psychiatrists called into the case by the defense and appointed by the court, it is the police psychiatrist who really gets the true picture." If an accused person shows resistance to the injection of drugs for investigation, it "demonstrates his guilt and such a reaction and resistance is indicative of his guilt."

Of homosexuals, both male and female, the author says: "Most of them are egotists, living under the idea that they can improve upon the laws of God and man." For homosexuality "electric shock therapy" is listed as one of the treatments offering "the best and most lasting results."

The contribution by the police officer has 2 case histories, more sensational than instructive. One refers to the "sex orgies" of a foreign diplomat and the other deals with an investigation that "travelled into high circles of government."

Ellery E. Cuff, public defender of Los Angeles County, contributes a brief statement justly criticizing some of the so-called "sexual psychopath" laws, according to which a man who has not committed a sexual offense may be committed for life as a "potential sex offender."

The author has contributed summaries and a glossary. Examples: "The conscious mind has no part in thought. Thinking is the function of the subconscious." "Conscious mind . . . its function is the state of awareness or consciousness." "Hysteria: a psychosomatic disorder characterized by violent symptoms of emotionalism with states of anxiety. . . ." "Unconscious mind . . . the seat of innate intelligence."

Dr. Manfred S. Guttmacher, who has done clinical research on sex criminals, wrote of the first edition of this book (Am. J. Psychiat. Dec. 1953, p. 477): "De River's book on the sexual criminal (is) a piece of charlatanry with special appeal to sado-masochists." This second edition would not change his opinion. The question might even be legitimately raised, in view of the illustrations and the form of the case histories, whether this is not a pornographic book. I have no doubt at all of how Kraepelin, Bleuler, Freud and Adolf Meyer would have answered that.

FREDRIC WERTHAM, M. D.,
New York City.

EMOTIONAL HAZARDS IN ANIMALS AND MAN. By *Howard S. Liddell, Ph.D.* (Springfield, Ill.: Charles C Thomas, pp. 97, 1956.)

This compact, interesting monograph, the first in a series of American Lectures in Objective Psychiatry, is a condensation of the author's 3 decades of experience in animal behavioral research. Starting from his intensive work with sheep and goats, several principles of behavior are evolved which are of practical and theoretical interest to psychiatry. The central one pertains to the stressfulness of self-imposed restraints, considered to be the basis for the development of emotionally disturbed behavior (experimental neurosis) in ani-

mals and presumably involved in human illness as well. In such situations, an organism is placed in a position of uncertain, perhaps anxious, anticipation of what is to take place next, a serious threat to emotional control, while the capacity for responding in different ways has been restricted sharply. Experimental data are summarized which cogently demonstrate this point. Settings such as these, when translated into their human counterparts and compounded by the variables of loneliness, monotony, confusion or overstimulation, are suggested as important prior conditions for the development of emotionally disturbed behavior. For humans, the culture is restrictive, thereby setting the stage for the development of emotional illness. Phases in this development along with symptoms manifested are outlined and presented as comparable in a broad sense for both animal and man. This is illustrated by examples. The author suggests a means for the maintenance of mental health in face of restrictive features. This is envisaged in terms of the "creative impulse," by means of which man can be relatively free and still remain socialized.

There is much merit in the author's point of view, for he has attempted, and successfully, to point out ways of bridging the gap between the laboratory and the clinic. This is not to say that all mental illness derives from the factors he suggests, but there can be little question that he has arrived at fundamental principles which should be investigated more intensively with regard to their role in humans. Certainly, the ever present paradox of overstimulation in the direction of culturally interdicted goals in our society today looms large as a threat to the maintenance of mental health and can be shown to have comparable effects in laboratory animals as well.

Dr. Liddell's book is a fascinating blend of psychological, psychiatric and philosophical considerations pertaining to mental health from the standpoint of an experimentalist. It makes for enjoyable and stimulating reading, and is recommended highly.

LESTER H. GLIEDMAN, M. D.,
Johns Hopkins University.

MASKED EPILEPSY. By *Hugh R. E. Wallis, M. D.* (Baltimore: Williams & Wilkins, 1956. $2.50.)

Attention is focused on diagnostic problems of so-called cyclic vomiting, headache, abdominal pain, pyrexia, pain in other parts of the body, nightmares, sleep walking, day terrors, screaming attacks, temper tantrums, etc. Wallis in *Masked Epilepsy* gathers these problems into the fold of idiopathic epilepsy on the basis of six points: 1. paroxysmal nature of the attacks; 2. family history; 3. progress of the disease; 4. electroencephalographic findings; 5. response to treatment; 6. lack of other adequate explanation. He estimates that in 100 cases of masked epilepsy, 42 could be expected to give the family history of seizures, 58 a history of epilepsy or masked epilepsy and 85 an abnormal electroencephalogram. Although it has been pointed out that a number of normal people show abnormal EEG tracings, Wallis counters that the "normal" people were selected only by the fact that they never had a convulsion and probably included a number of sufferers from masked epilepsy.

The book may be criticized as a very sketchy job in which the 20 case histories are only highlighted, the EEGs not described (but merely stated as "normal," "outside normal limits," "immature for age," "definite epileptic feature," "no definite epileptic features," "some epileptic features," etc.) the criteria non-specific. We may disagree when he states that response to anticonvulsant treatment (phenobarbital) proves 2 cases as epilepsy. Nevertheless the book serves a useful purpose in directing attention toward a diagnosis of epilepsy in these problem cases which may actually respond to anticonvulsant drugs. Many patients may thus be saved months and years of ineffective medical, surgical or psychiatric treatment.

ELIZABETH G. FRENCH, M. D.,
Boston, Mass.

MR. LYWARD'S ANSWER. By *Michael Burn.* (London: Hamish Hamilton, 1956. 21 s.)

Michael Burn, a correspondent for the *Times* has written a sensitive and poetic account of Finchden Manor and its Director, G. A. Lyward. This is a residential school for disturbed children which was founded by its present director and provides a therapeutic community for what Alexander would call a corrective emotional experience. Mr. Lyward, a lay therapist, has been directing this school for the last 25 years. The current enrolment of the school is 40 adolescents; approximately 270 boys have been rehabilitated by this program. The author describes Lyward's uncanny understanding of these boys and how he and his staff of 6 offer warmth and understanding to these pre-psychotic youngsters. At times the boys and staff are described with such clarity that one can almost visualize the situation. The author spent many months as a member of the staff to secure the data and one can experience the nuances which the boys are experiencing.

The results obtained are remarkable. Of the 270 boys who have spent time at the school, 220 stayed for the minimal period of 6 months and a few remained as long as 6 years. It is estimated that 213 have been rehabilitated and are handling their anxiety in acceptable ways instead of participating in delinquent or psychotic patterns.

The serious defect in this volume is the absence of specific formulations and techniques in handling these adolescents. One would question the statistics given by the author, as he does not describe his follow-up study. One can overlook the defects as he writes, "I am no expert on psychiatry but a respectful tourist in their land." This is one of the few volumes that provides fascinating reading and attempts to enlighten the lay audience and the expert. It is recommended to all who work with adolescents.

LOUIS LUNSKY, M. D.,
Los Angeles, Cal.

The CIBA Collection of Medical Illustrations. Vol. 1. Nervous System with a Supplement on the Hypothalamus. By *Frank H. Netter, M.D.* (Commissioned and published by CIBA Pharmaceutical Products, Inc., U. S. Headquarters: Summit, N. J., 1957. $7.00.)

This volume is the first of a series (3 volumes have already been published) which when completed will cover "the major anatomy and pathology of all the systems comprising the human organism." The illustrations are in color and are in themselves beautiful works of art. We are reminded of the extraordinary drawings of Max Brödel of the early Hopkins days, pioneer medical illustrator in the United States. The excellence of the CIBA plates is the happy result, as Dr. Fulton says in his Foreword, "of artist and physician being combined in one person."

The illustrations are accompanied by descriptive texts by Doctors Kaplan, Kuntz and von Bonin, that are "comprehensive and yet masterpieces of conciseness."

The prefatory page by medical historian John F. Fulton is particularly useful in giving an outline history of medical illustration from the *Fabrica* of Vesalius onward. He notes that the plate of the vascular circle at the base of the brain included in Thomas Willis' *Cerebri Anatome* (1674) was designed by Christopher Wren. Fulton comments, "I have always suspected that it was Wren rather than Willis who discovered the arterial circle." He remarks further that Netter's portrayal of the Circle of Willis "is probably the clearest that one will find in any modern anatomical text." Also, in the plate of the lateral aspect of the brain, the position of the Island of Reil, often confusing to students, is clearly shown by the simple devise of retracting the Fissure of Sylvius.

The material in this volume is divided into 5 sections: 1. anatomy of the spine; 2. the central nervous system; 3. functional neuro-anatomy; 4. the autonomic nervous system; 5. pathology of the brain and spinal cord. To the present third printing of Vol. I is added a supplement covering the hypothalamus, prepared in collaboration with Dr. Ingram, and which first appeared in the July-August 1956 number of the CIBA Clinical Symposia. This valuable section shows in lateral, frontal and horizontal planes the various hypothalamic relationships. Such functions as control of water excretion, regulation of water balance, of blood pressure and temperature, control of appetite, sleep-waking mechanisms, and those involved in certain emotional reactions are beautifully portrayed.

Altogether Volume I contains 122 full-color plates, and both the main portion and appendix are comprehensively indexed. There is also a brief biographical sketch of, and an introduction by, the artist.

The books in this series are offered by CIBA Pharmaceutical Products, Inc. as a non-profit service to the medical profession. They are sold at cost and can be obtained from any CIBA office or through book stores.

C. B. F.

The Conquest of Loneliness. By *Eric P. Mosse* (New York: Random House, Inc., 1957.)

Dr. Mosse has written an interesting and readable book on loneliness. In the first part of the book he discusses our civilization as conducive to producing more and more states of loneliness. Dr. Mosse has defined loneliness not as the disease of being alone, but that of fear of being alone, namely, isolated—cut off from human contact. He feels that many of the achievements of our civilization tend to isolate people from each other even though men appear to live more and more in close cooperation with each other. For this, of course, the term "lonely crowd" was coined. No comparative studies exist thus far as to how this isolation of individuals is really more prevalent in our culture. Retrograde falsifications are not uncommon in appraising past cultures. Isolation or the feeling of being isolated commonly occurs in certain mental disorders like schizophrenia. This occurs in every culture and individuals suffering from this disorder seemingly feel out of communication with their surroundings regardless of how the culture is organized. This would indicate that certain fears of loneliness or isolation are not due to environmental factors alone, but that the psychic organization of the person which tends to isolate him from any environment in which he lives also has to be considered.

Dr. Mosse is aware of the fact that loneliness is not a disease but a symptom which could be the sign of a social disorder, an individual disorder, or both. Again it is not specific to any one particular emotional disorder, but can occur in the framework of different psychiatric entities such as schizophrenia, depressions, neuroses, etc. The well-documented case histories in the book clearly indicate that loneliness as a symptom can occur in a number of clinical configurations. It is also clear that all treatment attempts have to be based on an individual appraisal of the patient to gain insight into the special dynamic constellation which is present. At times attempts have been made to relieve loneliness in persons with advice as to how to socialize. Attempts have even been made to expose such persons to social situations where it was assumed this would benefit them. These measures may help persons who are lonely, but they do not help people who are suffering from loneliness. Dr. Mosse clearly indicates that the sources, intricacies and reaction formations have to be taken into full consideration if we want to help these patients.

Dr. Mosse has written a well-organized and extremely readable book on a symptom which occurs in many psychiatric conditions and which creates a deal of suffering in individuals who are often highly intellectual, sensitive, but fearful of rejection. Loneliness is an important psychiatric symptom. Interestingly enough it has not been written up very often in the psychiatric literature. Dr. Mosse's book, therefore, fills a gap. It also conveys the message to many that a great deal of help can be given to persons suffering from loneliness.

P. H. H.

IN MEMORIAM

ROBERT FINLEY GAYLE, JR., M. D., 1891-1957

On November 4, 1957, death claimed Robert Finley Gayle, Jr., outstanding psychiatrist and neurologist, and past president of The American Psychiatric Association.

Born a Viriginian, Dr. Gayle received his rudimentary education in Norfolk, Virginia, and his doctorate of medicine at the Medical College of Virginia. His training at the Neurological Institute in New York and the Orthopedic Hospital in Philadelphia, his services as a psychiatrist with the American Expeditionary Forces Third Division in France during World War I, and his exceedingly well-rounded program of experience in numerous hospital settings, qualified him for the offices and responsibilities he was later to assume in the realm of neurology and psychiatry.

The personality of Robert Finley Gayle, Jr., was fashioned in no small degree by four people. His mother, Mae Jeanette Young Gayle, contributed a cultured background, endowing him with a gracious manner and training in the social skills. His father, Robert Finley Gayle, a Methodist minister, passed on an interest in community affairs, a certain air of confidence, and political acumen. When Finley, as a medical student, was pressed for funds, it was Beverly Tucker, then professor of neurology at the Medical College of Virginia, who secured part-time work for him. They became friends, and it was through this association that Finley decided to enter the field of neurology. On return from war service, he formed a partnership with Dr. Tucker for the practice of psychiatry and neurology. Finley later became professor of neurology and psychiatry, and ultimately chairman of that department, at the Medical College of Virginia. During his earlier years of training and overseas experience, Colonel Zabriskie was one of the many persons who influenced his growth and remained a lifelong friend. Finley, however, was impressed most of all by his relationships with Dr. Joseph Collins, a powerful individual. He often commented that he had learned to be arrogant from Joe Collins.

Finley is perhaps best remembered by his behavior when, in a controversy, he had to express a contrary point of view. His eyes would flash and his voice was sharp and crisp whenever he made a stand for what he felt to be right and just—as though he were leading a cavalry charge against the entrenched forces of wrong. Insofar as his war experiences along the Marne and at Belleau Woods were concerned, there was never any boasting—only the remark, "I was there."

He was a teacher, an organizer, an investigator, a successful therapist, and above all, an executive. This latter characteristic developed over the years, as he was chosen to many executive positions of prominence in the South, in the nation, and in the international scene. He is remembered in Virginia particularly for his service to the mentally ill. His work with the Hospital Board was recently commemorated by the opening of the R. Finley Gayle Treatment Center at the Southwestern State Hospital, Marion, Virginia. The peak of his career was marked by his outstanding record as President of The American Psychiatric Association. He had creative ability; yet, most of all, he preferred to see a job well done through his leadership, rather than to receive individual recognition for its completion.

To know Finley best was to know him in his home. He was happiest in his house in Richmond or his cottage on the York, with his children and grandchildren around him. He was a true patriarch, whose life was blessed first by Elizabeth Marshall Cole, and later Sarah Geer Dale, both splendid wives. He was well aware of this, and would often say to me, "We were lucky in choosing good women. Know how to pick them, don't we,

boy!" He was a grecious host and a visit to his home was an experience to cherish.

In the last analysis, Finley Gayle, was a personality, was unique. His natural display of fine manners, his infinite accumulation of skill in interpersonal relationships, his thoughtfulness and consideration of the feelings of others—never servile or falsely ingratiating—were innate and admirable. He was a man of definite opinions, which he did not hesitate to express. His acceptances were based on worth; he was also slow to change, though happy to enter into new ventures when convinced the move was right. His character, personality, and sound judgment surrounded him with an atmosphere of solidarity, manifested by feelings of security in those who sought his help—in those who studied under him—in all who knew him.

Dr. Gayle's lifetime was marked, too, by his contributions to the field of neurology and psychiatry, evidenced by his influence in Virginia and throughout the South, and his many writings which have helped to advance study in this phase of medicine.

Dr. Gayle was an outstanding member of The American Psychiatric Association. When elected to the office of secretary, he became a devoted servant. Although physical illness caused him great pain, he continued to give of himself without limit and later, by the singular ability he demonstrated as President of the Association, he became more than an individual leader; his imprint on this century-old tradition will always be felt.

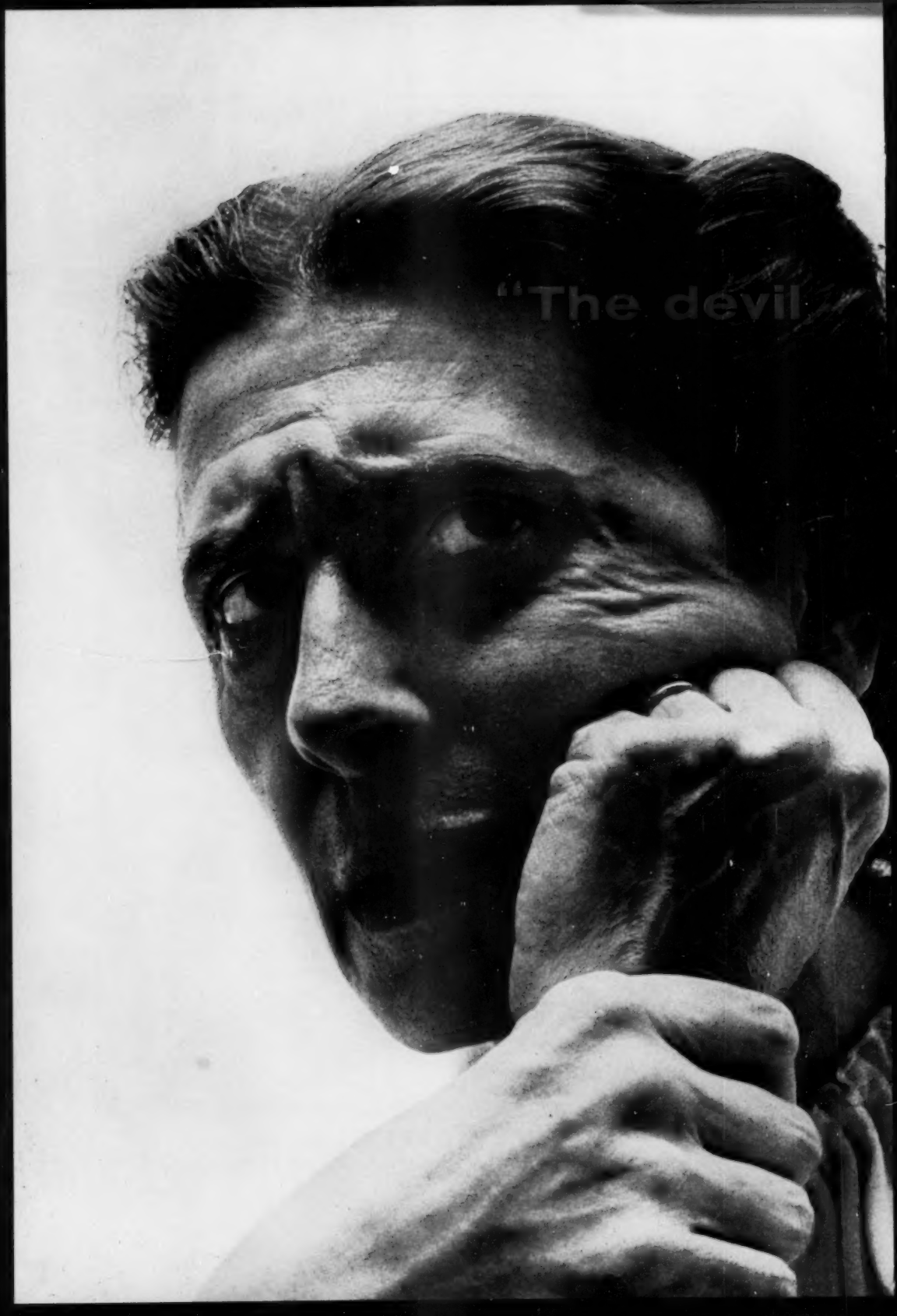
The American Psychiatric Association is most grateful for the life exemplified in Robert Finley Gayle, Jr., whose contributions and services have fashioned a richer, finer organization. He will live on in the hearts of its members, who, with all his acquaintances, will remember him as a loyal friend, a dynamic influence, and above all, a gentleman.

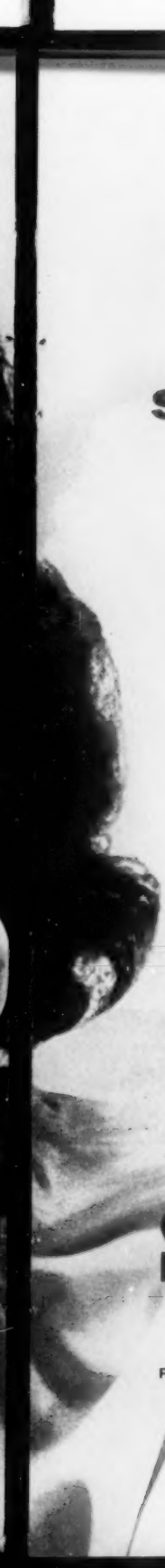
DAVID C. WILSON, M. D.

DEMOS

It is extremely curious how easy it is to get into a false position in the mind of the public. I'm not conscious of ever having sinned against the common people, yet I am said to be its enemy. To be sure, I am no friend of the revolutionary mob which is out for theft and murder and arson and the most vulgar personal profit in the name of the public weal. I am no friend of such people, but neither am I a friend of Louis XV's. I hate violent overthrow because it always involves the destruction of good, whatever be its gain. I hate those who bring it about and equally those who made it inevitable. Well, does that make me an enemy of the people?

—GOETHE
(to Eckermann, Apr. 27, 1825.)


"The devil



still talks to me

but I don't bother to holler back. . . ."[1]

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1. Fazekas, J.F., et al.: J.A.M.A. *161*:46 (May 5) 1956.

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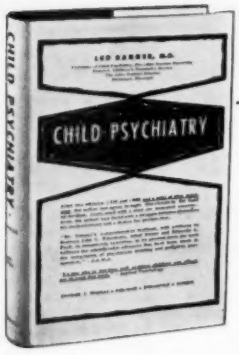

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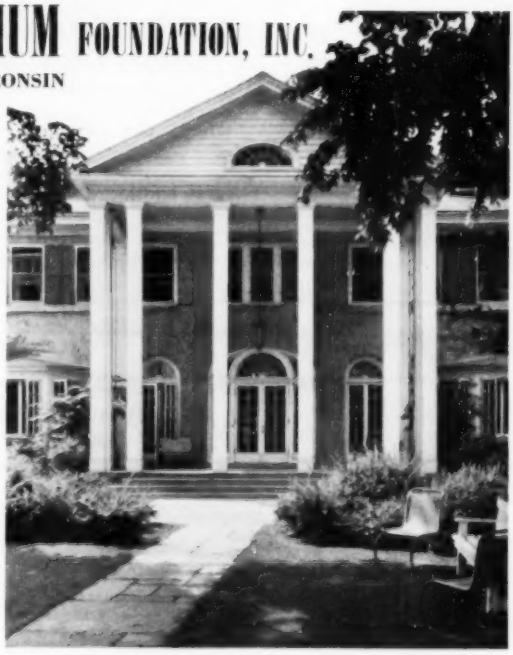

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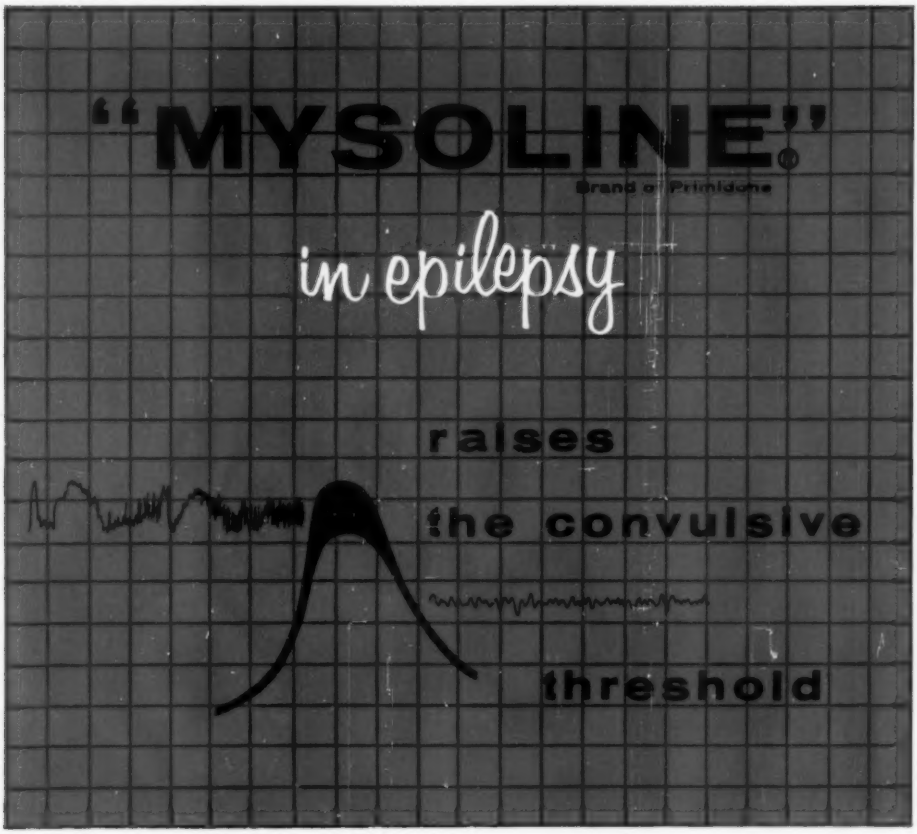

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